

**Parcels C, D, E, and E-2  
Quarterly Groundwater Monitoring Report  
(January-March 2007)  
and Annual Report**

**Hunters Point Shipyard  
San Francisco, California**

**June 2007**

**Document Control number: CEKA-3001-0000-0002**

**Prepared for:**



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**Contract N62473-07-C-3001**



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Dear BCT Members:

Enclosure (1), Parcels C, D, and E January - March 2007 Quarterly Groundwater Monitoring Report, Hunters Point Shipyard, San Francisco, California, is provided for your review and information. Please provide any review comments within thirty days of receipt.

Should you have any concerns regarding the enclosed report, please contact Mr. Mark Walden at (619) 532-0931.

Sincerely,  


KEITH FORMAN  
BRAC Environmental Coordinator  
By direction of the Director

Enclosure: 1. Parcels C, D, and E Quarterly Groundwater Monitoring Report, January – March 2007, Hunters Point Shipyard, San Francisco, California (June 2007)

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## Certification

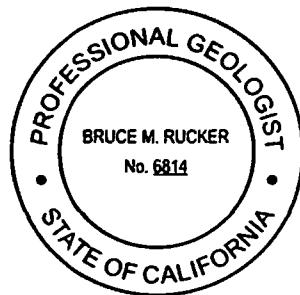
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**Hunters Point Shipyard  
San Francisco, California**

June 2007

I certify that the work presented in this report was performed under my supervision. To the best of my knowledge, the data contained herein are true and accurate and the work was performed in accordance with professional standards.

Bruce M. Rucker



**Bruce M. Rucker, PG  
Senior Geologist  
CE2-Kleinfelder Joint Venture**

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- Appendix D. Chain-of-custody forms.
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## **Abbreviations and Acronyms**

APPL	Agriculture & Priority Pollutants Laboratories, Inc
BGMP	Basewide Groundwater Monitoring Program
CCR	California Code of Regulations
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
DCB	Dichlorobenzene
DCE	Dichloroethene
DNAPL	Dense non-aqueous phase liquid
DTSC	(California) Department of Toxic Substances Control
EPA	U.S. Environmental Protection Agency
HGAL	Hunters Point Groundwater Ambient Level
HPS	Hunters Point Shipyard
IR	Installation Restoration
JV	Joint Venture
LDC	Laboratory Data Consultants
LNAPL	Light non-aqueous phase liquid
µg/L	Microgram per liter (parts per billion)
MCL	Maximum Contaminant Level
MS/MSD	Matrix spike/matrix spike duplicate
MSL	Mean sea level
Navy	U.S. Department of the Navy
NAWQC	National Ambient Water Quality Criteria
NOAA	National Oceanic and Atmospheric Administration
PARCC	precision, accuracy, representativeness, completeness, and comparability
PCB	Polychlorinated biphenyl
PCE	Tetrachloroethene
QA/QC	Quality assurance and quality control
QAPP	Quality Assurance Project Plan
RAMP	Remedial Action Monitoring Plan
ROD	Record of Decision
RPD	Relative percent difference
RU	Remedial Unit
RWQCB	(California) Regional Water Quality Control Board
SAP	Sampling and Analysis Plan
SI	Site Inspection
SVE	Soil vapor extraction
SVOC	Semi-volatile organic compound
TCE	Trichloroethene
TtEMI	Tetra Tech EM, Inc.
TPH	Total petroleum hydrocarbons
UST	Underground Storage Tank
VOC	Volatile organic compound
ZVI	Zero-valent iron

## **1.0 Introduction**

On behalf of the U.S. Department of the Navy (Navy), Naval Facilities Engineering Command, Southwest Division, the CE2-Kleinfelder Joint Venture (JV) has prepared this Groundwater Monitoring Report for Parcels C, D, E, and E-2 at Hunters Point Shipyard (HPS) located in San Francisco, California. The location of HPS is shown on Figure 1-1.

This report documents quarterly data collected from January through March 2007 (First Quarter 2007 [1Q2007]). It also summarizes data collected during the previous three quarters (2Q2006 through 4Q2006) (CE2-Kleinfelder 2007a, 2007b, 2007c).

### **1.1 Regulatory Framework**

Groundwater issues at HPS are primarily regulated by the United States Environmental Protection Agency (EPA), the California Regional Water Quality Control Board (RWQCB), and the California Department of Toxic Substances Control (DTSC). In 1989, the EPA placed HPS on the National Priorities List in response to shipyard activities that had resulted in soil and groundwater contamination. Unlike Parcel B, a Record of Decision (ROD) has not been implemented for Parcels C, D, E, and E-2. The Basewide Groundwater Monitoring Program (BGMP) incorporated protocols specified under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). In addition, monitoring at the Industrial Landfill complies with Title 27 of the California Code of Regulations (27 CCR – municipal landfill).

### **1.2 Scope**

Groundwater monitoring in Parcels C, D, E, and E-2 was conducted in accordance with the *Final Sampling and Analysis Plan (SAP) for the Basewide Groundwater Monitoring Program* (TtEMI 2004), except as discussed in field variances (Appendix I). The scope of the Parcels C, D, E, and E-2 quarterly groundwater monitoring includes:

- Measuring groundwater levels.
- Collecting and analyzing groundwater samples.
- Verifying and validating the analytical data.
- Interpreting the data.
- Submitting quarterly and annual reports.

Monitoring wells for which water level measurements and/or groundwater sampling are required to be performed by the SAP are referred to in this report as compliance monitoring wells. Plate 1 shows the location of the compliance monitoring wells and indicates which wells are designated for water level measurement, sampling, or both measurement and sampling. Table 1-1 presents well location, construction, and sampling information for the compliance monitoring wells.

### **1.3 Changes to Basewide Compliance Monitoring Well Network**

No changes were made to the Parcels C, D, E, and E-2 portion of the basewide compliance monitoring well network in the current quarter.

Well installation logs and decommissioning logs will be periodically provided to the BCT along with a revised Well Construction Details Table.

Changes to the basewide monitoring well network are being considered as part of the upcoming revised SAP.

## **2.0 Site Conditions and Background**

This section presents a summary of the site setting, history, contaminant sources, and hydrogeology.

### **2.1 Site Description and History**

HPS is located on the southeastern edge of San Francisco and along the western shore of San Francisco Bay. HPS currently covers approximately 420 acres of lowland coast and shoreline. HPS is divided into five terrestrial Parcels (B, C, D, E, and E-2) and submerged Parcel F. The locations of the terrestrial Parcels are shown on Figure 1-1. Parcels C, D, E, and E-2 cover approximately 362 acres.

Approximately 80 percent of the land area at HPS is composed of artificial fill, mostly quarried rock and dredged soil placed on top of marshland. Most of this filling occurred in the 1940s. The 1935 shoreline is shown on Plate 1.

From 1869 until 1939, the shipyard was operated as a commercial dry dock facility. The Navy leased the property prior to 1940, when the Navy obtained ownership of the shipyard for ship building, repair, and maintenance activities. At the conclusion of World War II, activities shifted from ship repair to submarine servicing and testing. HPS was deactivated in 1974 and remained relatively unused until 1976. Between 1976 and 1986, the Navy leased most of the property to a privately owned ship repair firm. In 1986, the Navy again occupied the shipyard and began a program to investigate and clean up contamination resulting from past activities.

The primary land use has been office and commercial/industrial buildings. Most of Parcels C, D, and E are paved, while Parcel E-2 is mostly unpaved. Except along the boundary with the non-Navy property to the north, HPS is relatively flat with ground surface elevations averaging approximately 5 to 10 feet above mean sea level (MSL).

### **2.2 Contaminant Sources**

Previous investigations at HPS have identified 78 Installation Restoration (IR) or Site Inspection (SI) sites at HPS, of which 66 are assigned to Parcels C, D, E, and E-2 as described in *Informal Briefing: Environmental Clean-Up Sites* (Navy 2003).

Seven groundwater remedial units (RUs) have been defined at HPS. Four RUs (RU-C1, RU-C2, RU-C4, and RU-C5) are located in Parcel C. The other three RUs (the Industrial Landfill Area, the Northwest Bay Fill Area, and the Former Oil Reclamation Ponds) are located in Parcel E. Various pilot-scale treatability studies have been conducted, including soil vapor extraction (SVE), zero-valent iron (ZVI) injection, and sequential anaerobic-aerobic bioremediation.

The contaminants of concern for HPS groundwater include volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), total petroleum hydrocarbons (TPHs), polychlorinated biphenyls (PCBs), pesticides, cyanide, and metals (primarily mercury and hexavalent chromium). Dense Non-Aqueous Phase Liquid (DNAPL) and/or Light Non-Aqueous

Phase Liquid (LNAPL) have historically been present in several monitoring wells. The LNAPL typically consists of petroleum hydrocarbons such as fuel and waste oil, the DNAPL typically consists of chlorinated solvents such as tetrachloroethene (PCE) and trichloroethene (TCE).

## **2.3 Hydrogeology**

The conceptual stratigraphy, hydrostratigraphy, recharge and discharge areas, and groundwater flow are summarized in the following sections.

### **2.3.1 Stratigraphy**

Five principal geologic units have been defined at HPS. In order of increasing depth, and approximately from youngest to oldest, these units are:

**Artificial Fill (Qaf)** – Most of the land area for HPS was created using quarried rock from upland areas. The artificial fill consists mostly of serpentinite with lesser amounts of dredged marshland deposits. The artificial fill also contains pockets of industrial fill consisting of building debris and sandblast grit. As a result, the artificial fill is a heterogeneous mixture of unconsolidated material with a wide range of grain sizes. The artificial fill overlies natural sediments or bedrock, depending on the location. The variable thickness of the artificial fill reflects erosional features such as stream channels in the natural sediments and an uneven bedrock surface. A relatively thin unit of slope debris and ravine fill underlies the artificial fill at scattered locations.

**Undifferentiated Upper Sands (Quus)** – This naturally occurring unit is comprised of poorly-graded, discontinuous estuarine, lagoonal, and alluvial sand deposits that overlie, but in places interbed with, the underlying Bay Mud. These sands may also directly overlie bedrock.

**Bay Mud (Qbm)** – The Bay Mud unit consists of estuarine sediments that are predominantly composed of silt and clay, but may include clayey or silty sands. The Bay Mud may underlie artificial fill or the upper sand deposits and overlie the deeper undifferentiated sediments or bedrock. The Bay Mud is occasionally interbedded with the upper Undifferentiated Sands unit.

**Undifferentiated Sediments (Qu)** – This unit consists of naturally occurring unconsolidated silty or clayey sands containing discontinuous, isolated sand lenses. These sediments can underlie any of the younger units.

**Franciscan Complex Bedrock (Kf)** – The bedrock consists primarily of serpentinite and minor amounts of metamorphosed basalt (greenstone) or shale. Bedrock competency is variable and fractures are common. The bedrock surface is irregular across the HPS. For example, bedrock is shallow near the northern boundary of Parcels C, D, and E and along the north side of the Dry Dock 3, but can be present at depths exceeding 130 feet in Parcel B and 280 feet in Parcel E.

### 2.3.2 Hydrostratigraphy

Four hydrostratigraphic units have been defined at HPS:

**A-Aquifer** - The unconfined A-Aquifer is present primarily in the artificial fill and Upper Undifferentiated Sands units, but in some places the groundwater in shallow fractured bedrock is in hydraulic connection with the A-Aquifer. In some locations the A-Aquifer has been subdivided into A-1, A-2 and A-3 to reflect separate localized water-bearing zones.

**Bay Mud Aquitard** - The discontinuous Bay Mud Aquitard separates the A-Aquifer from the B-Aquifer, where present.

**B-Aquifer** - The B-Aquifer is not continuous and directly underlies the A-Aquifer where the Bay Mud Aquitard is absent. The B-Aquifer is typically under semiconfined conditions.

**Bedrock Water-Bearing Zone** - The Bedrock Water-bearing Zone consists of isolated pockets of fractured bedrock that are not hydraulically connected to upper hydrostratigraphic units.

### 2.3.3 Recharge and Discharge

Most groundwater recharge occurs by infiltration of precipitation falling on the inland areas of the non-Navy Property to the north, and by precipitation falling on unpaved areas onsite, especially in Parcels E and E-2. Recharge sources to the A-Aquifer can also include buried utilities.

Groundwater discharges from the A-Aquifer to:

- Sanitary sewer lines, and is subsequently pumped offsite to a local sewage treatment plant;
- Storm drain lines; and
- San Francisco Bay at some segments along the shoreline, although specific areas of discharge have not been identified.

Vertical gradients suggest that groundwater can flow upward or downward between the A-Aquifer and the B-Aquifer, where the Bay Mud Aquitard between the two aquifers is absent.

### 2.3.4 Groundwater Flow Direction

Groundwater flow direction in the A-Aquifer is generally towards San Francisco Bay, but natural heterogeneities and anthropogenic features have created preferential groundwater pathways. The natural heterogeneities consist of stratigraphic discontinuities and facies changes. The anthropogenic features consist of heterogeneous pockets of artificial fill and an extensive system of buried utilities.

Groundwater elevations in the A-Aquifer are influenced by tidal fluctuations that create a

sinusoidal pressure wave near the shoreline. Tidal influence in the A-Aquifer decreases with increasing distance from the shoreline. The tidal period is approximately 6 hours. At HPS, the mean tide range (difference in height between mean high water and mean low water) is approximately 5 ft. A Tidally Influenced Zone has been defined for the A-Aquifer where tides cause groundwater elevations to fluctuate by 0.1 ft or more. The width of the Tidally Influenced Zone varies from approximately 75 to 500 ft along the shoreline. The Tidal Mixing Zone is defined as the area where A-Aquifer groundwater mixes with water from San Francisco Bay. The Tidal Mixing Zone is likely much narrower than the Tidally Influenced Zone, but has not been fully delineated.

Local anomalies in groundwater elevation can be caused by the interaction of subsurface utilities (sanitary sewer, storm sewer, and water supply lines) with the regional groundwater regime. Storm/sanitary sewer lines and backfill in the utility trenches can serve as a preferential pathway for groundwater flow and can either discharge or receive water. Local anomalies in groundwater elevation can also be caused by groundwater injection/extraction activities associated with treatability studies.

## **3.0 Groundwater Flow**

This section discusses the collection of groundwater elevation data and the evaluation of groundwater flow for the current quarter.

### **3.1 Groundwater Elevation Data**

Depth to groundwater was measured on March 13, 2007. Basewide groundwater elevations were measured in 361 monitoring wells, including 309 wells located within Parcels C, D, E, and E-2. Groundwater measurements are typically planned to occur during a 4-hour period around the higher-low neap tide, to reduce tidal influence on the measurements. However, collecting groundwater level measurements within this time period is not possible if the higher-low neap tide occurs on a weekend, holiday, or at night. For the current quarter event, there were no working days that coincided with the neap tide. Therefore the working day closest to the neap tide was selected. There were no daylight hours in this period that coincided with the higher-low tide on that day. Therefore groundwater depth measurements were made during the lower-low tide on that day. Tidal data for March 12-14, 2007 are shown on Table 3-1 (National Oceanic and Atmospheric Administration [NOAA] 2007).

Groundwater elevations were calculated by subtracting the depth to water measurements from the top of casing elevations. Groundwater elevation measurement information and data are included in the following appendices:

- Appendix A. Groundwater elevation measurement forms.
- Appendix B. Basewide groundwater elevation data.

### **3.2 Groundwater Flow**

#### **3.2.1 A-Aquifer**

Plate 2 presents a basewide potentiometric surface contour map for the A-Aquifer constructed using data from the current quarter measurement day. Appendix B provides information on the hydrostratigraphic completion unit of each monitoring well and shows the data used to construct the potentiometric surface map.

Groundwater generally flows toward San Francisco Bay from upland recharge areas in the non-Navy property to the north. In Parcels B and C, flow toward the Bay is relatively uniform except for small, relatively minor disturbances that may be caused by preferential flow into and recharge from subsurface utility trenches.

Groundwater elevations in portions of Parcels D and E are anomalously low (often below sea level), compared to those elsewhere on HPS. The potentiometric surface in these Parcels is influenced by groundwater flow into ruptured sanitary sewer lines that drain into a collection facility at Building 819 (located near the northern boundary of Parcel D), where the water is subsequently pumped offsite to the local sewage treatment plant. Where these sanitary sewer lines are submerged below the water table, they can serve as conduits to drain the surrounding

sediments and artificial fill. Shut-down of this pumping system occurred in May 2007. It is expected that system shutdown will result in shallow groundwater hydrology returning to natural conditions, likely to be a rise in groundwater levels.

The sanitary sewer system in Parcel B was deactivated in September 2005 to facilitate removal and radiological screening of the piping. Storm sewer outfalls to San Francisco Bay were plugged, and storm sewer lines were removed when these lines were encountered in the same trenches as sanitary sewer lines. Based on site topography and the distance between Parcel B and Parcels C, D, E and E-2, significant impacts on groundwater hydrology in Parcels C, D, E and E-2 would not be expected to result from the Parcel B sanitary sewer system deactivation.

No significant differences in A-Aquifer groundwater flow direction or gradient are observed in the current quarter relative to the previous quarter.

### **3.2.2 B-Aquifer**

Plate 3 presents a basewide potentiometric surface contour map for the B-Aquifer constructed using data from the current quarter measurement day. In Parcels C, D, E and E-2, groundwater elevations in wells completed in the confined B-Aquifer can be up to several feet higher than in nearby wells completed in the A-Aquifer. The Bay Mud Aquitard that separates the A- and B-Aquifers thins and becomes discontinuous to the northeast in Parcel C, and the difference in groundwater elevations between the aquifers is less distinct.

No significant differences in B-Aquifer groundwater flow direction or gradient are observed in the current quarter relative to the previous quarter.

## 4.0 Nature and Extent of Groundwater Contamination

### 4.1 Groundwater Sampling and Analysis

Groundwater sampling in Parcels C, D, E, and E-2 was conducted from February 12 through May 21, 2007. The analytical results from Parcel E-2 are combined with those from Parcel E. Groundwater samples were collected from monitoring wells in accordance with the BGMP SAP, except as discussed in field variances (Appendix I).

Sampling and analysis information for the current quarter is included in the following tables and appendices:

Table 4-1. Summary of groundwater sampling information.

Table 4-2. Summary of quality control sample information.

Appendix C. Monitoring well sampling forms.

Appendix D. Chain-of-custody forms.

Appendix E. Batch wastewater discharge permit application.

Groundwater analyses (non-radionuclides) were performed by Agriculture & Priority Pollutants Laboratories, Inc. (APPL) in Fresno, California. Analysis for radium-226 was conducted by Fruit Growers Laboratory, Inc. in Stockton, California. Analysis for cesium-137 was conducted by Eberline Services, Inc. in Richmond, California. All samples were transported to APPL from HPS by a courier.

### 4.2 Analytical Results

Plate 4 presents the lateral distribution of TCE, cis-1,2-dichloroethene (DCE), vinyl chloride, and hexavalent chromium in groundwater. Data from all wells sampled for these analytes are shown on these figures, regardless of hydrostratigraphic completion interval. This provides a comprehensive depiction of the extent of contamination for these analytes. The data used to construct Plate 4 are from the current quarter or, if not available for the current quarter, the most recent data from the previous three quarters. This methodology removes the effect of missing data from wells not sampled during the current quarter.

The following tables present the analytical data from the four most recent quarterly sampling events, and show the specific data values used to construct Plate 4:

Table 4-3. Concentrations of trichloroethene in groundwater.

Table 4-4. Concentrations of cis-1,2-dichloroethene in groundwater.

Table 4-5. Concentrations of vinyl chloride in groundwater.

Table 4-6. Concentrations of hexavalent chromium in groundwater.

A number of analytes were detected at concentrations exceeding the Federal or California Maximum Contaminant Levels (MCLs), Hunters Point Groundwater Ambient Levels (HGALs)

or National Ambient Water Quality Criteria (NAWQC) (collectively referred to herein as “water quality criteria”). Table 4-7 shows the wells where water quality criteria exceeded in the current quarter, analytes exceeding these criteria, and the analyte concentrations.

Analytical data for the current quarter are presented in the following appendices:

Appendix F. Laboratory analytical reports and data validation reports.

Appendix G. Analytical results tabulation.

#### **4.2.1 RU-C1**

There are four buildings (Building 211, Building 231-north, Building 231-south, and Building 253) in RU-C1; these buildings were historically used for heavy industrial machining. There were also nine underground storage tanks (USTs) removed from RU-C1 in 1991 and 1993. Chlorinated solvents are the primary contaminants at RU-C1.

In 2000/2001, a SVE treatability study was conducted at the junction of Buildings 211 and 253 (IT Corporation 2002c). This pilot-scale study was designed to study the effectiveness of using SVE to reduce VOC concentrations in soil and soil vapor. TCE was the primary chlorinated VOC in soil vapor. The SVE system was operated from February to June 2001 and consisted of 5 vapor extraction wells and 23 vapor monitoring wells. The cumulative VOC mass removed was approximately 20 pounds.

In 2000/2001, a SVE treatability study was conducted near the center of Building 231 (IT Corporation 2002a). This pilot-scale study was designed to study the effectiveness of using SVE to reduce VOC concentrations in soil and soil vapor. The primary chlorinated VOC in soil vapor was cis-1,2-DCE. The SVE system was in operation from March to June 2001 and consisted of 14 vapor extraction wells and 36 vapor monitoring wells installed. The cumulative VOC mass removed was approximately 2 pounds.

Figure 4-1 presents time-series plots of TCE and cis-1,2-DCE in groundwater at RU-C1; Figure 4-2 shows vinyl chloride, 1,2-DCB, and 1,4-DCB.

The analytical results for RU-C1 wells indicate the following:

#### TCE

- The maximum TCE concentration in the current quarter was detected in the sample from well IR28MW151A (400 µg/L). This well has generally shown the maximum TCE concentration in RU-C1. The current quarter TCE concentration is a historical maximum.
- The current lateral extent of TCE is consistent with previous quarters.
- TCE concentrations in individual wells are variable over time, but fluctuate within a range of one order of magnitude or less. An anomalously low TCE concentration was detected in well IR28MW151A in 3Q2006, and has rebounded in the current quarter

to a historical maximum.

- Water quality criteria for TCE were exceeded in two RU-C1 wells in the current quarter (wells IR28MW136A and IR28MW151A).

#### Cis-1,2-DCE

- The maximum cis-1,2-DCE concentration in the current quarter was detected in the sample from well IR28MW151A (1,200 µg/L). This well has consistently shown the maximum cis-1,2-DCE concentration in RU-C1. The current quarter cis-1,2-DCE concentration approximates the historical maximum.
- The current lateral extent of cis-1,2-DCE is consistent with previous quarters.
- Cis-1,2-DCE concentrations in individual wells are variable over time, and fluctuate within a range of one order of magnitude or less. No contaminant concentration trends are evident.
- Water quality criteria for cis-1,2-DCE were exceeded in two RU-C1 wells in the current quarter (wells IR28MW136A and IR28MW151A).

#### Vinyl Chloride

- The maximum vinyl chloride concentration in the current quarter was detected in the sample from well IR28MW151A (430 µg/L). This well has generally shown the maximum vinyl chloride concentration in RU-C1, and the current quarter maximum vinyl chloride concentration is consistent with previous quarters.
- The current lateral extent of vinyl chloride is consistent with previous quarters.
- Vinyl chloride concentrations in individual wells are variable over time, and fluctuate within a range of one order of magnitude or less. In well IR28MW151A, concentrations fluctuate between approximately 100 µg/L and 1,000 µg/L, with one exception: vinyl chloride was not detected in this well in 1Q2006 (considered an anomalous result).
- Water quality criteria for vinyl chloride were exceeded in two RU-C1 wells in the current quarter (wells IR28MW136A and IR28MW151A).

#### DCB

- Neither 1,2-DCB nor 1,4-DCB were detected in RU-C1 samples in the current event.
- DCB has historically been detected in well IR28MW169A, at concentrations up to approximately 10 µg/L. The absence of DCB in the current event is consistent with recent historical (since 2Q2006) sampling events.
- DCB chloride concentrations in individual wells are highly variable over time, with

historical maxima detected in 3Q2004 and 4Q2005. Current quarter DCB concentrations are at historical minima.

- Water quality criteria for DCB were not exceeded in any RU-C1 wells in the current quarter.

#### Other Analytes

- Water quality criteria were exceeded in the current quarter for: benzene, total chromium, hexavalent chromium, copper, tetrachloroethene, and trans-1,2-DCE.

#### **4.2.2 RU-C2**

The two principal sources of contamination for RU-C2 are the sump and dip tank in Building 251 and the pickling and degreasing area in Building 258. Chlorinated solvents are the primary contaminants at RU-C2.

In 2000/2001, a SVE treatability study was conducted at the northern side of Building 251 (IT Corporation 2002b). This pilot-scale study was designed to study the effectiveness of using SVE to reduce VOC concentrations in soil and soil vapor. PCE was the primary chlorinated VOC in soil vapor. The SVE system was operated from February to June 2001 and consisted of 6 vapor extraction wells and 22 vapor monitoring wells. The cumulative VOC mass removed was approximately 3 pounds.

Figure 4-3 presents time-series plots of TCE and cis-1,2-DCE in groundwater at RU-C2; Figure 4-4 shows vinyl chloride, 1,2-DCB, and 1,4-DCB. The analytical results for RU-C2 wells indicate the following:

#### TCE

- The maximum TCE concentration in the current quarter was detected in the sample from well IR58MW300F (11 µg/L). This well has generally shown the maximum TCE concentration in RU-C2, and the current quarter maximum TCE concentration is consistent with previous quarters.
- The current lateral extent of TCE is consistent with previous quarters.
- TCE concentrations in individual wells are variable over time, and fluctuate within a range of one order of magnitude or less. Anomalously high TCE concentrations were detected in two RU-C2 wells in 1Q2005 (wells IR58MW32B and IR58MW31A). TCE concentrations in individual wells in the current quarter are approximately the same as 2Q2004 (beginning of time-series plot).
- Water quality criteria for TCE were exceeded in two RU-C2 wells in the current quarter (wells IR28MW300F and IR58MW32B).

#### Cis-1,2-DCE

- The maximum cis-1,2-DCE concentration in the current quarter was detected in the sample from well IR58MW32B (8.7 µg/L). This concentration is less than the historical maximum cis-1,2-DCE concentration in RU-C2 (approximately 200 µg/L in well IR58MW33B in early 2004. Maximum cis-1,2-DCE concentrations in RU-C2 have historically been detected in different wells.
- The current lateral extent of cis-1,2-DCE is consistent with previous quarters.
- cis-1,2-DCE concentrations in individual wells are variable over time, and fluctuate within a range of one order of magnitude or less. No contaminant concentration trends are evident.
- Water quality criteria for cis-1,2-DCE were exceeded in two RU-C2 wells in the current quarter (wells IR28MW21F and IR58MW32B).

#### Vinyl Chloride

- The maximum vinyl chloride concentration in the current quarter was detected in the sample from well IR58MW31A (36 µg/L). This well has consistently shown the maximum vinyl chloride concentration in RU-C2, and the current quarter maximum vinyl chloride concentration is at a historical minimum for this well.
- The current lateral extent of vinyl chloride is consistent with previous quarters.
- Vinyl chloride concentrations in individual wells are variable over time, and fluctuate within a range between one and two orders of magnitude. No contaminant trends are evident, except that current quarter concentrations are below those detected in early 2004.
- Water quality criteria for vinyl chloride were not exceeded in any RU-C2 wells in the current quarter.

#### 1,2-DCB

- The maximum 1,2-DCB concentration in the current quarter was detected in the sample from well IR58MW31A (100 µg/L). This well has consistently shown the maximum 1,2-DCB concentration in RU-C2, and the current quarter historical maximum 1,2-DCB concentration is consistent with recent historical maxima in RU-C2.
- The current lateral extent of 1,2-DCB is consistent with previous quarters.
- 1,2-DCB concentrations in individual wells are variable over time, and fluctuate within a range of approximately one order of magnitude. Current quarter 1,2-DCB concentrations are below historical maxima (2Q2004) in two wells (IR58MW31A and IR58MW33B), and are slightly higher in well IR58MW32B.
- Water quality criteria for 1,2-DCB were not exceeded in any RU-C2 wells in the

current quarter.

#### 1.4-DCB

- The maximum 1,4-DCB concentration in the current quarter was detected in the sample from well IR58MW31A (100 µg/L). This well has consistently shown the maximum 1,4-DCB concentration in RU-C2, and the current quarter historical maximum 1,4-DCB concentration is consistent with historical maxima in RU-C2.
- The current lateral extent of 1,4-DCB is consistent with previous quarters.
- 1,4-DCB chloride concentrations in individual wells are variable over time, and fluctuate within a range of approximately one order of magnitude. In two wells (IR58MW31A and IR58MW32B), current quarter concentrations approximate those detected in early 2004. In well IR58MW33B, current quarter concentration is an order of magnitude below that detected in early 2004.
- Water quality criteria for 1,4-DCB were exceeded in two RU-C2 wells in the current quarter (wells IR58MW31A and IR58MW32B).

#### Other Analytes

- Water quality criteria were exceeded in the current quarter for: benzene, carbon tetrachloride, chlorobenzene, hexavalent chromium, and total chromium.

#### **4.2.3 RU-C4**

Potential contaminant sources at RU-C4 include five steel dip tanks containing solvents, paints, acids, and metals located in Building 281, a sump area, solvent-containing USTs, and an above ground storage tank containing sulfuric acid. The primary contaminant at RU-C4 is TCE. Concentrations of PCE, cis-1,2-DCE, and vinyl chloride have also been detected, but at much lower concentrations and over smaller areas than those of TCE.

In 2000/2001, a SVE treatability study was conducted at the northeast corner of Building 272 (IT Corporation 2002d). This pilot-scale study was designed to study the effectiveness of using SVE to reduce VOC concentrations in soil and soil vapor. TCE was the primary chlorinated VOC in soil vapor. The SVE system was operated from March to July 2001 and consisted of 4 vapor extraction wells and 38 vapor monitoring wells. The cumulative VOC mass removed was estimated at 5.4 pounds.

In December 2002, the Navy conducted the first ZVI injection pilot test at RU-C4. Approximately 16,000 pounds of iron was injected into four boreholes in Building 272. Prior to treatment, TCE concentrations were as high as 88,000 micrograms per liter (ug/L). Twelve weeks after iron injection, the maximum detected concentration was 850 ug/L. Reduction of TCE in the treatment zone was estimated at 99.2 percent (TTEMI 2003).

In 2004/2005, a second ZVI Injection Treatability Study was performed beneath Building

281 and adjacent to Building 272 (ITSI 2005). Approximately 72,000 pounds of ZVI powder was injected into 13 boreholes distributed over an area of approximately 6,500 square ft. A slurry of ZVI powder and potable water was injected using nitrogen gas. The ZVI established reducing conditions in the A-Aquifer that promoted breakdown of chlorinated VOCs. TCE concentrations in groundwater within the treatment zone decreased from a baseline average of 1,385 µg/L to a post-injection average of 35 µg/L. Significant reductions in concentrations of intermediate degradation products (cis-1,2-DCE, 1,1-DCE, and vinyl chloride) were observed. TCE was reduced almost completely to ethene and chloride (ITSI 2005).

Figure 4-5 presents time-series plots of TCE and cis-1,2-DCE in groundwater at RU-C4; Figure 4-6 shows vinyl chloride, 1,2-DCB, and 1,4-DCB. The analytical results for RU-C4 wells indicate the following:

#### TCE

- The maximum TCE concentration in the current quarter was detected in the sample from well IR28MW406A (93 µg/L). This well has consistently shown maximum TCE concentrations in RU-C4, and the current quarter maximum TCE concentration is less than the historical maximum in RU-C4 (approximately 250 µg/L detected in 3Q2004).
- The current lateral extent of TCE is consistent with previous quarters.
- TCE concentrations in individual wells are variable over time, and fluctuate within a range between one and two orders of magnitude. No contaminant concentration trends are evident. Current quarter TCE concentrations in the majority of RU-C4 wells are at or below those detected in early 2004. Current quarter TCE concentrations in three wells (IR28MW350F, IR28MW355F, and IR28MW311A) are above those detected in early 2004.
- Water quality criteria for TCE were exceeded in seven RU-C4 wells in the current quarter.

#### Cis-1,2-DCE

- The maximum cis-1,2-DCE concentration in the current quarter was detected in the sample from well IR28MW211F (120 µg/L). This well has shown maximum cis-1,2-DCE concentrations in RU-C4 since 2Q2005, and the current quarter maximum cis-1,2-DCE concentration approximates maxima since that time.
- The current lateral extent of cis-1,2-DCE is consistent with previous quarters.
- cis-1,2-DCE concentrations in two wells have shown an order of magnitude decrease since early 2004: IR28MW211F and IR28MW407. In other wells, cis-1,2-DCE concentrations are variable over time, and fluctuate within a range of one order of magnitude.

- Water quality criteria for cis-1,2-DCE were exceeded in three RU-C4 wells in the current quarter (wells IR28MW211F, IR28MW406A, and IR28MW407A).

#### Vinyl Chloride

- The maximum vinyl chloride concentration in the current quarter was detected in the sample from well IR28MW407A (60 µg/L). Maximum vinyl chloride concentrations in RU-C4 have historically been detected in wells IR28MW407A and IR28MW211F. The current quarter maximum vinyl chloride concentration approximates recent historical maxima.
- The current lateral extent of vinyl chloride is consistent with previous quarters.
- Vinyl chloride concentrations in individual wells are variable over time, and fluctuate within a range between one and two orders of magnitude. An anomalously low concentration was detected in IR28MW407 in 3Q2006, and has subsequently rebounded to near historical maximum concentration.
- Water quality criteria for vinyl chloride were exceeded in two RU-C4 wells in the current quarter (wells IR28MW211F and IR28MW407A).

#### 1,2-DCB

- The maximum 1,2-DCB concentration in the current quarter was detected in the sample from well IR28MW407A (97 µg/L). This well has consistently shown maximum historical concentrations in RU-C4 wells. The current quarter maximum concentration is within the range of historical maxima.
- The current lateral extent of 1,2-DCB is consistent with previous quarters.
- 1,2-DCB concentrations in well IR28MW407A decreased significantly between 2Q2004 and 2Q2005, and subsequently have rebounded to a concentration approximately 50% of the concentration detected in early 2004. 1,2-DCB concentrations in IR28MW211F are relatively stable.
- Water quality criteria for 1,2-DCB were exceeded not exceeded in any RU-C4 wells in the current quarter.

#### 1,4-DCB

- The maximum 1,4-DCB concentration in the current quarter was detected in the sample from well IR28MW407A (25 µg/L). This well has consistently shown the historical maximum 1,4-DCB concentrations in RU-C4, and the current quarter maximum concentration is within the range of historical maxima.
- The current lateral extent of 1,4-DCB is consistent with previous quarters.
- 1,4-DCB concentrations in well IR28MW407A showed a decrease between 3Q2004

and 2Q2005, and subsequently have been relatively stable. 1,4-DCB concentrations in IR28MW211F are low and stable.

- Water quality criteria for 1,4-DCB were exceeded in one RU-C4 well in the current quarter (well IR28MW407A).

#### Other Analytes

- Water quality criteria were exceeded in the current quarter for benzene, carbon tetrachloride and 1,2-DCA (Freon 150).

#### **4.2.4 RU-C5**

Two principal sources of groundwater contamination at RU-C5 are the sump and dip tank in Building 134 located in IR-25 and the former fuel tank farm located in IR-06. The primary concern for RU-C5 is chlorinated solvents, but other VOCs, SVOCs, pesticides, PCBs, and metals are also present in groundwater at IR-25. Two treatability studies were conducted at Building 134.

In 2000/2001, a SVE treatability study was conducted at Building 134 (IT Corporation 2001). This pilot-scale study was designed to study the effectiveness of using SVE to reduce VOC concentrations in soil and soil vapor. The primary chlorinated VOCs in soil vapor were PCE, TCE, and cis-1,2-DCE. The SVE system was operated from February to June 2001 and consisted of 17 vapor extraction wells and 46 vapor monitoring wells. The cumulative VOC mass removed within the test performance period was estimated at 5 pounds.

In 2004/2005, an *In Situ* Bioremediation (ISB) Treatability Study was performed in the same area of Building 134 as the SVE treatability study (Shaw Environmental 2005). This pilot-scale study was designed to study the effectiveness of using ISB to reduce VOC concentrations in groundwater by stimulating the indigenous microorganisms. The bioremediation was conducted in two stages consisting of the anaerobic ISB (Stage 1) and the aerobic ISB (Stage 2). The anaerobic ISB (Stage 1) was operated from April to December 2004 and consisted of extracting groundwater, amending the extracted water with sodium lactate, and injecting the amended groundwater into aquifer. The aerobic ISB (Stage 2) was operated from January to May 2005 and involved introducing oxygen into the groundwater using iSOC™ units and an *in situ* Submerged Oxygen Curtain. The treatability study demonstrated that sequential aerobic and aerobic ISB was an effective treatment technology for reducing the concentrations of chlorinated VOCs in groundwater at RU-C5.

Figure 4-7 presents time-series plots of TCE and cis-1,2-DCE in groundwater at RU-C5; Figure 4-8 shows vinyl chloride, 1,2-DCB, and 1,4-DCB. The analytical results for RU-C5 wells indicate the following:

### TCE

- The maximum TCE concentration in the current quarter was detected in the sample from well IR06MW59A1 (430 µg/L). This is the second consecutive quarter that this well has shown the maximum TCE concentration in RU-C5. The current quarter maximum concentration is less than the historical maximum (1,100 µg/L in IR06MW59A1 in 4Q2006).
- The current lateral extent of TCE is consistent with previous quarters.
- TCE concentrations in individual wells are variable over time, and fluctuate within a range of approximately one order of magnitude, with one exception: an order of magnitude increase in TCE concentration was detected in well IR06MW59A1 in 4Q2006 relative to the previous quarterly events. A slight decrease was observed in the current quarter. No contaminant concentration trends are evident.
- Water quality criteria for TCE were exceeded in three RU-C5 wells in the current quarter (wells IR06MW32A, IR06MW59A1, and IR25MW16A).

### Cis-1,2-DCE

- The maximum cis-1,2-DCE concentration in the current quarter was detected in the sample from well IR25MW16A (96 µg/L). This well has consistently shown maximum cis-1,2-DCE concentrations in RU-C5, and the current quarter maximum concentration is consistent with previous quarters.
- The current lateral extent of cis-1,2-DCE is consistent with previous quarters.
- cis-1,2-DCE concentrations in individual wells are variable over time, and fluctuate within a range of approximately one order of magnitude. No contaminant concentration trends are evident. In well IR06MW40A, cis-1,2-DCE was detected above the quantitation limit for the first time, at a concentration of 3.4 µg/L.
- Water quality criteria for cis-1,2-DCE were exceeded in three RU-C5 wells in the current quarter (wells IR06MW35A, IR06MW59A1, and IR25MW16A).

### Vinyl Chloride

- The maximum vinyl chloride concentration in the current quarter was detected in the sample from well IR06MW40A (110 µg/L). This is the first quarter in which this well, located on the downgradient (north) leading edge of the VOC plume, has showed the maximum vinyl chloride concentration, which was previously detected in well IR06MW59A1. The current quarter maximum concentration is the historical maximum detected in RU-C5.
- Vinyl chloride concentrations in two wells (IR06MW59A1 and IR06MW35A) have shown a general decrease since early 2004. In other wells, vinyl chloride

concentrations are variable over time, and fluctuate within a range of approximately one order of magnitude. Well IR06MW40A showed a sharp concentration increase in 1Q2007, from non-detect to 100 µg/L.

- Water quality criteria for vinyl chloride were exceeded in three RU-C5 wells in the current quarter (wells IR06MW40A, IR06MW59A1, and IR25MW16A).
- The sharp increase in vinyl chloride concentration in downgradient well IR06MW40A indicates that the VOC plume is migrating downgradient (to the north).

#### 1,2-DCB

- The maximum 1,2-DCB concentration in the current quarter was detected in the sample from well IR06MW35A (0.54 µg/L). The current quarter maximum concentration is below historical maxima.
- The current lateral extent of 1,2-DCB is consistent with previous quarters.
- 1,2-DCB concentrations are highly variable over time, and fluctuate in a range between one and two orders of magnitude. No contaminant concentration trends are evident.
- Water quality criteria for 1,2-DCB were not exceeded in any RU-C5 wells in the current quarter.

#### 1,4-DCB

- 1,4-DCB was not detected in any RU-C5 wells in the current quarter.
- 1,4-DCB concentrations are highly variable over time, and fluctuate in a range between one and two orders of magnitude. No contaminant concentration trends are evident.
- Water quality criteria for 1,4-DCB were not exceeded in any RU-C5 wells in the current quarter.

#### Other Analytes

- Water quality criteria were exceeded in the current quarter for: benzene, carbon tetrachloride, total chromium, hexavalent chromium, methylene chloride, trans-1,2-DCE, and tetrachloroethene.

#### **4.2.5 IR-09 and IR-33**

The primary sources for groundwater contamination at IR-09 are associated with industrial metal finishing and painting. The contaminant releases at IR-09 have resulted in hexavalent chromium, cyanide, and VOC contamination. Historically, at IR-33, hexavalent chromium, total

chromium, copper, and vanadium were detected at concentrations exceeding evaluation screening criteria.

Figure 4-9 presents time-series plots of total chromium and hexavalent chromium in groundwater at IR-09 and IR-33.

The analytical results for IR-09 and IR-33 wells indicate the following:

#### Hexavalent and Total Chromium

- The maximum hexavalent and total chromium concentrations in the current quarter were both detected in the sample from well IR09PPY1 (579 µg/L and 581 µg/L, respectively). This well has shown maximum hexavalent and total chromium concentrations in IR09 since 4Q2005. The current quarter concentration maxima are at or above historical maxima.
- The current lateral extent of hexavalent and total chromium is consistent with previous quarters.
- In well IR33MW61A, total chromium and hexavalent chromium concentrations generally are highest in samples collected during the winter (rainy) months. This trend is not evident in the samples from other wells. Hexavalent and total chromium increased an order of magnitude between 1Q2005 and the subsequent event in 4Q2005. Subsequent concentrations have remained elevated in this well.
- Water quality criteria for total chromium were exceeded in seven IR-09 wells and were exceeded for hexavalent chromium in three IR-09 wells in the current quarter. No IR-33 wells exceeded water quality criteria for total or hexavalent chromium.

#### TCE

- The maximum TCE concentration in the current quarter was detected in the sample from well IR09MW51F (25 µg/L). This well has consistently shown the maximum TCE concentrations in IR-09. The current quarter maximum TCE concentration is within the range of historical TCE maxima in this well. TCE has not been detected in IR33MW61A in the past year of monitoring.
- The current lateral extent of TCE is consistent with previous quarters.
- Water quality criteria for TCE were not exceeded in any IR-09 or IR-33 wells in the current quarter.

#### Other Analytes

- Water quality criteria were not exceeded for any other analytes in either IR-09 or IR-33 in the current quarter.

#### **4.2.6 Industrial Landfill Area**

As defined in the SAP, the Industrial Landfill Area comprises approximately 22 acres and is primarily located in IR-01, but also extends into portions of IR-02, IR-12, IR-56, and IR-72. The Industrial Landfill Area includes the area of known waste disposal, as well as areas to the southwest of the landfill ("panhandle" area) and to the southeast of the landfill ("Other Landfill Area"). The total area is also referred to in the SAP as the Landfill Industrial Landfill Study Area. The boundaries of the Industrial Landfill Study Area are generally coincident with the Parcel E-2 boundaries. Potential contaminant sources associated with the Industrial Landfill include sandblasting wastes, asbestos wastes, paints, solvents, waste fuels and oils containing PCBs, metal debris, and releases from drums. There are a total of 36 Industrial Landfill Area wells designated by the SAP for sampling, including seven wells identified in the SAP as "Other Industrial Landfill Area Wells."

In the current quarter, water quality criteria for the following analytes were exceeded in the Industrial Landfill Area: 1,1-dichloroethane (DCA); 1,2-DCA (Freon 150); 1,1-DCE; 1,4-DCB; ammonia; antimony; arsenic; barium; benzene; cis-1,2-DCE; copper; cyanide; lead; nickel; selenium, silver; TCE; tetrachloroethene; and vinyl chloride.

The concentrations and lateral extent of contaminants are consistent with previous data.

#### **4.2.7 Northwest Bay Fill Area**

The Northwest Bay Fill area is primarily located in IR-02 and IR-36 (see Plate 1). The contamination in the groundwater at the Northwest Bay Fill Area is associated with the former disposal area along the shoreline near Building 600. The Northwest Bay Fill Area contains construction debris and industrial wastes. In addition to disposal debris (such as paint cans, drums, tanks, and pipe lagging) and liquid wastes (such as solvents and waste oils), potential sources of groundwater contamination include radium-containing devices removed from Navy ships and submarines that were disposed of in this area. There are a total of ten Northwest Bay Fill Area wells designated by the SAP for sampling.

In the current quarter event, water quality criteria for the following analytes were exceeded in the Northwest Bay Fill Area: copper and zinc.

The concentrations and lateral extent of contaminants in this area are consistent with previous data.

#### **4.2.8 Former Oil Reclamation Ponds Area**

The Former Oil Reclamation Ponds Area, located in IR-03 (see Plate 1), consisted of two former oil ponds used as part of a waste oil reclamation system. In addition to VOCs, PCBs, and TPH in waste oil, potential contaminant sources include sandblasting wastes used as fill material and disposed on the ground surface, industrial waste fill material containing various metal pipes, plastics, and tires, and alleged dumping of liquid and sandblast waste. There are a total of nine Former Oil Reclamation Ponds Area wells designated by the SAP for sampling.

In the current quarter, water quality criteria for the following analytes were exceeded in the Former Oil Reclamation Ponds Area: antimony, barium, benzene, copper, 1,4-dioxane, nickel, and vinyl chloride.

The concentrations and lateral extent of contaminants in this area are consistent with previous data.

#### **4.2.9 Radionuclides**

Beginning 1Q2007, samples were collected from 6 wells in Parcel E (wells IR02MW126A, IR02MW147A, IR02MW149A, IR02MW179A, IR02MW209A, and IR02MWB-1), and analyzed for the radionuclides radium-226 and cesium-137. No radiological activity above statistical background was reported in any of the samples.

#### **4.2.10 NAPL Measurements**

Measurements of LNAPL and DNAPL are performed annually, in the third quarter of each year. No NAPL measurements were made in the current quarter.

### **4.3 Data Quality**

Field and laboratory personnel implemented standard quality assurance/quality control (QA/QC) procedures to evaluate the quality of the data collected during this sampling event. Field QC consisted of collecting field duplicate samples, equipment rinsate blank samples, trip blank samples, source blank samples, and matrix spikes/matrix spike duplicate (MS/MSD) samples in accordance with the SAP (TtEMI 2004).

A total of 167 groundwater samples, with accompanying 128 field QC samples, were collected from February 12, 2007 to March 21, 2007, and submitted for analysis to Agriculture and Priority Pollutants Laboratories, Inc. (APPL) in Fresno, California. In addition, samples for radionuclide analysis were submitted to Fruit Growers Laboratory, Inc. for Radium-226 analysis and to Eberline Services, Inc. for Cesium-137 analysis.

Laboratory Data Consultants (LDC) of Carlsbad, California validated the laboratory analytical data according to the procedures outlined in the following documents:

- USEPA Contract Laboratory Program National Functional Guidelines For Organic Data Review (U.S. Environmental Protection Agency [EPA] 1999).
- USEPA Contract Laboratory Program National Functional Guidelines For Inorganic Data Review (EPA 2004).
- Data Validation Statement of Work (TtEMI 2005).
- Comprehensive Long-term Environmental Action Navy Clean II Statement of Work (Navy 2002)

One hundred percent of the data were subject to a data quality assessment (i.e., review, verification, validation, and usability assessment), with approximately 80 percent of the data

undergoing Level III data validation and 20 percent of the data undergoing Level IV validation in accordance with the SAP.

The objective of data validation is to evaluate whether the quality of the chemical data is adequate for the intended use(s), as defined by the precision, accuracy, representativeness, completeness, and comparability (PARCC) parameters in the *EPA Requirements for Quality Assurance Project Plans* (QAPP) (EPA 2002) and the SAP. PARCC parameters were assessed by:

- Reviewing and comparing field and laboratory QC data to the precision and accuracy criteria defined in the SAP.
- Reviewing the overall analytical process, including holding time, calibration, analytical or matrix performance, and analyte identification and quantitation.
- Assigning qualifiers to data when associated QA/QC criteria were not achieved.
- Evaluating and summarizing implications of the frequency and severity of qualifiers in the validated data.

#### **4.3.1 Evaluation of Quality Control Samples**

The following subsections provide an evaluation of the analytical results for field duplicate samples, equipment blank samples, and trip blank samples.

During the 1Q2007 sampling event, field duplicate pairs were collected at 22 of the 167 groundwater monitoring wells sampled in Parcels C, D, E and E-2, meeting the minimum 10 percent requirement as specified in the SAP. Analytical results for these field duplicate samples are included in Appendix H. Relative percent differences (RPDs) were calculated using the field duplicate pair results. Because neither the RAMP (TtEMI 1999) nor the SAP establishes a maximum acceptable RPD for field duplicate pairs, a generally accepted conservative standard of 30 percent was selected to be the acceptable criterion. Of the 1,188 field duplicate results, 5 of the paired results (approximately 0.4 percent) exceeded the 30 percent RPD criterion. Analytical data were not qualified on the basis of field duplicate results.

During the 1Q2007 sampling event, 60 equipment rinsate blanks (rinsate samples) were collected from Parcels C, D, and E, meeting the requirements of the SAP. The analytical results for the rinsate samples are included in Appendix F. The rinsate samples contained low concentrations of chloroform and bromodichloromethane, as well as several metals. These analytes are regularly detected at relatively consistent concentrations in the source water used in the equipment decontamination. Of the 2,773 rinsate sample results generated, 3 analytes (approximately 0.1 percent) were detected. During the data validation process, the overall data quality was deemed to be unaffected, and thus unqualified, as a result of the rinsate sample detections.

Laboratory-prepared trip blank samples, containing analyte-free water, were included in each of the coolers that contained samples for VOC and TPH (purgeable) analyses, as specified in the

SAP. Beginning on February 21, 2007, additional trip blank samples accompanied each sample team per day. Of the 1,885 trip blank results, no analytes were detected.

#### **4.3.2 Summary of Data Quality**

Of the 17,199 individual analytical results generated for Parcels C, D, E, and E-2 in 1Q2007:

- A total of 769 results were qualified as estimated (J or UJ qualifiers), but are considered usable.
- No results were rejected.

Therefore, a total of 100 percent of the 1Q2007 groundwater analytical data for Parcels C, D, E, and E-2 are considered usable, which meets the completeness criteria of 95% as specified in the SAP (TtEMI 2004).

A project chemist reviewed the data validation reports for completeness, accuracy, and adherence to the SAP. Although some qualifiers were applied to the analytical data, the PARCC criteria for the majority of the data were successfully met. Supporting documentation, including laboratory analytical results and data validation (Levels III and IV) reports, are included in Appendix F.

#### **4.4 Deviations from the SAP**

Field variance reports for the current quarter event are included in Appendix K. These variance reports present the details of the individual deviations from the SAP. The general deviations for the current quarter event include:

1. Water levels were not measured in 57 monitoring wells because these wells have been decommissioned (22 wells), were inaccessible (12 wells), were damaged (5 wells), were obstructed (3 wells), had no water (1 well), or were wells where NAPL has historically been present (13 wells).
2. Groundwater depth was measured outside the tidal time window in 1 well.
3. Groundwater samples were not collected from 36 monitoring wells because these wells were inaccessible (8 wells), were damaged (6 wells), were obstructed (2 wells), have been decommissioned (12 wells), insufficient water for sampling (2 wells), or were wells where NAPL has historically been present (6 wells).
4. Pre-sampling purging parameters did not meet the stabilization criteria (see criteria below), and the required 14L maximum was not purged prior to sampling in 8 wells.
5. The drawdown exceeded 25% of the available water column in 1 well. Redevelopment of this well is being evaluated.

The pumps were placed within the well screened intervals during the purging and sampling of all wells.

The variances reflect modifications to the pre-sampling purging parameter stabilization criteria developed at the HPS Groundwater Meeting on July 19, 2006:

1. The three most important groundwater stabilization parameters, in order of importance, are: (1) specific conductance, (2) pH, and (3) dissolved oxygen.
2. Other parameters, including temperature, turbidity, and oxidation-reduction potential will be monitored and recorded. However, they will not be used to determine stabilization and will be used only for informational purposes.
3. For determining whether a well has stabilized, the minimum and maximum values of the last three readings for specific conductivity, pH, and dissolved oxygen will be compared, without regard to order.
4. The stabilization criteria are: (1) specific conductivity: plus or minus 3%, (2) pH: plus or minus 0.2 pH units, and (3) dissolved oxygen: plus or minus 10% or 0.2 mg/L (whichever is greater).

A formal revision to the SAP incorporating these changes is being prepared.

Table 4-8 summarizes recurring variances (related to well yield and well condition) that have been recorded in SAP compliance wells over the previous year, and that have affected SAP-required depth to water measurement and/or groundwater sampling. This table is updated quarterly (wells where variances have been resolved are deleted, and wells with new variances are added). The objective of this table is to identify SAP compliance wells for which corrective action may be required to continue meeting BGMP objectives. In summary:

- 31 wells had a variance in 2 or more quarterly events.
- Types of variances related to well yield and well condition include: low recharge/excessive drawdown/no water in well, well obstruction, damage, and inaccessibility.
- Variances precluded depth to water measurement (only) at 7 wells, groundwater sampling (only) at 11 wells, and both depth to water measurement and sampling at 13 wells.
- A well repair and redevelopment program is in progress.

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## **5.0 Summary and Conclusions**

Groundwater elevations were measured on March 13, 2007 in 309 monitoring wells located within Parcels C, D, E, and E-2. Groundwater in the A-Aquifer generally flows toward San Francisco Bay from upland recharge areas in the non-Navy property to the north. In Parcels B and C, flow toward the Bay is relatively uniform except for small, relatively minor disturbances that may be caused by preferential flow into and recharge from subsurface utility trenches. Groundwater elevations in much of Parcels D and E are anomalously low (often below sea level), compared to those elsewhere on HPS. The potentiometric surface in Parcel D is interpreted to be highly influenced by groundwater flow into ruptured sanitary sewer lines that drain into a collection facility at Building 819. The groundwater flow pattern in Parcel E-2 shows much less influence from groundwater flow into ruptured sanitary sewer lines than is present in Parcels D and E.

Groundwater sampling in Parcels C, D, E, and E-2 was conducted from February 12 through May 21, 2007. Groundwater samples were collected from 172 monitoring wells. Water quality criteria exceedances (MCLs, HGALs, and/or NAWQC) were reported in 68 analyses for metals (13 different metals), 74 analyses for VOCs (13 different VOCs), and 25 analyses for other four other compounds (1,4-dioxane, ammonia, cyanide, and PCB-1260). No water quality exceedances were reported for pesticides or SVOCs.

The current magnitude and lateral extent of contamination in groundwater are generally consistent with previous quarters, with one exception: vinyl chloride in RU-C5 well IR06MW40A appears to be migrating downgradient (to the north).

The data validation process determined that 100 percent of the current event groundwater analytical data (including field-collected samples and QA/QC samples) for Parcels C, D, E, and E-2 are considered usable.

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## **Tables**

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**Table 1-1. Compliance well construction and sampling information.**

Well ID	Parcel	Northing	Easting	TOC elevation (ft MSL)	TOS depth (ft bgs)	BOS depth (ft bgs)	Casing TD (ft bgs)	SAP required DTW?	SAP required sampling?	Comment
IR01MW02B	NNP	452006.87	1457472.91	20.61	27	37	37	Yes	Yes	
IR01MW03A	NNP	451997.51	1457475.96	19.89	12	27	27	Yes	Yes	
IR01MW05A	NNP	451889	1457735.8	22.56	9.5	26.5	26.5	Yes	Yes	
IR01MW07A	E-2	451645.08	1458217.06	19.02	5	22	22	Yes	No	Decommissioned (2002)
IR01MW09B	E-2	451291.11	1458505.08	10.05	32	42	42	Yes	Yes	
IR01MW10A	E-2	451652.09	1458238.92	13.75	5	22	22	Yes	Yes	
IR01MW11A	E-2	451641.47	1458216.08	17.96	5	17	17	Yes	No	
IR01MW12A	E-2	451630.19	1458205.85	18.25	5	22	22	Yes	No	
IR01MW16A	E-2	451755.55	1457454.71	24.66	11.5	26.5	26.5	Yes	No	
IR01MW17B	E-2	451696.82	1457521.49	29.55	37	47	47	Yes	Yes	
IR01MW18A	E-2	451487.33	1457687.42	23.61	10	28	28	Yes	No	
IR01MW26B	E-2	451271.85	1457812.14	24.02	41	51	51	Yes	Yes	
IR01MW31A	E-2	451709.1	1457116.33	13.81	6	24	24	Yes	Yes	
IR01MW366A	E-2	451037	1458223	17.31	9.2	19.2	19.7	Yes	Yes	
IR01MW366B	E-2	451008.5	1458259.2	16.57	43	53	53	Yes	Yes	
IR01MW367A	E-2	451289	1458347	12.12	5	15	15.5	Yes	Yes	
IR01MW38A	E-2	451265.9	1457596.7	17.37	7	20	20	Yes	Yes	
IR01MW400A	NNP	450719	1456254	11.58	5	20	20.5	Yes	No	
IR01MW402A	NNP	451251	1456651	12.51	5.5	20.5	21	Yes	No	
IR01MW403A	NNP	451822	1457071	13.00	6	21	21.5	Yes	Yes	
IR01MW403B	E-2	451842.6	1457153.6	10.43	23	33	33	Yes	Yes	
IR01MW42A	E-2	450889.61	1458141.19	13.28	16.5	25	25	Yes	Yes	
IR01MW43A	E-2	450750.54	1457799.87	12.16	5	22.5	22.5	Yes	Yes	Decommissioned (2005)
IR01MW44A	E-2	450427.81	1457854.56	9.22	4	8	8	Yes	Yes	Decommissioned (2005)
IR01MW47B	E-2	450733.52	1457831.85	12.31	35	45	45	Yes	Yes	Decommissioned (2005)
IR01MW48A	E-2	451235.62	1457143.24	10.96	5	18	18	Yes	Yes	
IR01MW53B	E-2	451238.55	1457131.37	10.01	34	44	44	Yes	Yes	

**Table 1-1. Compliance well construction and sampling information.**

Well ID	Parcel	Northing	Easting	TOC elevation (ft MSL)	TOS depth (ft bgs)	BOS depth (ft bgs)	Casing TD (ft bgs)	SAP required DTW?	SAP required sampling?	Comment
IR01MW58A	E-2	450892.94	1456447.14	9.19	4	16.5	16.5	Yes	Yes	
IR01MW62A	E-2	450607.92	1456381.18	7.91	3	13	13	Yes	Yes	
IR01MW63A	E-2	450630.23	1456253.77	7.88	4	18	18	No	Yes	
IR01MWI-2	E-2	451135.09	1458317.62	13.22	5.5	20.5	20.5	Yes	No	
IR01MWI-3	E-2	450902.28	1457612.06	13.80	4	17	17	Yes	Yes	Decommissioned (2005)
IR01MWI-5	E-2	451212.67	1457828.17	24.51	5	20	20	Yes	No	
IR01MWI-6	E-2	451202.46	1456676.72	9.55	4	11.5	11.5	No	Yes	
IR01MWI-7	E-2	451007.37	1456811.65	5.81	3	13	13	Yes	Yes	
IR01MWI-8	E-2	450486.93	1456477.47	6.64	2	12	12.5	Yes	Yes	
IR01MWI-9	E-2	451130.81	1456783.26	8.04	3	13	13	Yes	No	
IR01MWLF1A	E-2	451551.7	1457296.4	20.80	5	20	20	Yes	Yes	
IR01MWLF2A	E-2	452019.9	1457359.4	19.52	5	20	20	Yes	Yes	
IR01MWLF4A	E-2	450758.2	1458080.5	14.88	6	26	32	Yes	Yes	
IR01MWLF4B	E-2	450790.1	1458039.3	14.40	38	53	55	Yes	Yes	
IR02MW101A1	E	449503.94	1458996.46	11.23	7	17	17	Yes	No	
IR02MW101A2	E	449504.48	1458992.08	11.22	27	34	34	Yes	No	
IR02MW114A1	E	449776.09	1458510.72	13.63	5	10	10	Yes	No	
IR02MW114A2	E	449779.28	1458513.07	12.43	13	25	25	Yes	No	
IR02MW114A3	E	449774.97	1458515.29	13.29	42	49	49	Yes	No	
IR02MW126A	E	450042.18	1457954.82	11.36	5	14	14	Yes	Yes	
IR02MW127B	E	449934.87	1458163.41	14.59	54	64	64	Yes	Yes	Decommissioned (2005)
IR02MW141A	E	449885.53	1458090.88	15.49	6	16	16	No	Yes	Decommissioned (2005)
IR02MW146A	E	449080.17	1459500.16	11.30	6	18	18	Yes	No	
IR02MW147A	E	449299.98	1458893.5	8.36	4	9	9	Yes	Yes	
IR02MW149A	E	449335.31	1458701.83	8.72	4.5	19.5	19.5	Yes	Yes	
IR02MW173A	E	448899.53	1459809.8	9.51	6	19	19	Yes	No	
IR02MW175A	E	448340.24	1460641.3	7.74	9	31	31	Yes	Yes	

Table 1-1. Compliance well construction and sampling information.

Well ID	Parcel	Northing	Easting	TOC elevation (ft MSL)	TOS depth (ft bgs)	BOS depth (ft bgs)	Casing TD (ft bgs)	SAP required DTW?	SAP required sampling?	Comment
IR02MW179A	E	448306.99	1461054.61	9.82	4.5	18	18	Yes	Yes	
IR02MW183A	E	448523.61	1461083.62	10.40	4	34	34	Yes	No	
IR02MW196A	E	448735.65	1460492.35	8.05	4.3	11.3	11.3	Yes	No	
IR02MW206A1	E	448517.2	1460467.97	7.43	2.5	7.5	7.5	Yes	No	
IR02MW206A2	E	448513.75	1460471.23	7.41	10	20	20	Yes	Yes	
IR02MW209A	E	448628.02	1460319.72	6.34	9	19	19	Yes	Yes	
IR02MW210B	E	448874.22	1460154.48	9.17	22	30	30	Yes	No	
IR02MW298A	E	449618.76	1458588.99	11.79	6	21	21	Yes	No	
IR02MW299A	E	448950.23	1460109.04	10.56	6	21	21	Yes	No	
IR02MW300A	E	448176.8	1460764.39	9.00	7.8	22.8	22.8	Yes	Yes	Decommissioned
IR02MW372A	E	449944	1458166	14.21	5	15	15.5	Yes	No	Decommissioned (2005)
IR02MW373A	E	450174	1458019	11.34	5	10	10.5	Yes	No	
IR02MW89A	E	450181.69	1458612.51	10.08	6	21	21	Yes	No	
IR02MW93A	E	449821.52	1459022.89	7.25	4	19	19	Yes	No	
IR02MW97A	E	449365.27	1459533.52	8.95	5	22	22	Yes	No	
IR02MWB-1	E	449248.1	1459161.49	8.46	4	19	19.5	Yes	Yes	
IR02MWB-2	E	449407.48	1458301.67	11.88	4	19	19	Yes	Yes	
IR02MWB-3	E	449798.42	1458003.26	12.95	4	19	19	Yes	Yes	Decommissioned (2005)
IR02MWB-5	E	448787.96	1460115.24	4.74	3	17	17	Yes	Yes	
IR02MWC5-W	E	449728.34	1458911.99	7.49	5	15	15	Yes	Yes	
IR02P97AA	E	449377.03	1459534.06	7.09	5	23	23	Yes	No	
IR02P97AB	E	449351.4	1459521.08	7.54	5	25	25	Yes	No	Decommissioned
IR03MW218A1	E	448916.93	1459580.85	11.92	4	10	10	Yes	No	
IR03MW218A2	E	448918.29	1459567.49	12.26	12.5	17.5	17.5	Yes	Yes	
IR03MW218A3	E	448908.77	1459574.37	12.00	20	30	30	Yes	No	
IR03MW224A	E	449089.45	1459700.21	10.92	7.7	15.7	15.7	Yes	Yes	
IR03MW225A	E	448974.12	1459526.71	12.27	4	19	19	Yes	No	

**Table 1-1. Compliance well construction and sampling information.**

Well ID	Parcel	Northing	Easting	TOC elevation (ft MSL)	TOS depth (ft bgs)	BOS depth (ft bgs)	Casing TD (ft bgs)	SAP required DTW?	SAP required sampling?	Comment
IR03MW226A	E	448893.2	1459608.51	11.81	4	19	19	Yes	No	
IR03MW228B	E	448926.2	1459580.66	12.12	62.6	72.6	72.6	Yes	Yes	
IR03MW342A	E	448886.81	1459905.31	8.48	5	14.5	14.5	Yes	Yes	
IR03MW369A	E	448796.7	1459789.6	10.01	4.5	19.5	20	Yes	Yes	
IR03MW370A	E	448876	1459569	11.19	6	21	21.5	Yes	Yes	
IR03MW371A	E	448955	1459503	12.48	6	21	21.5	Yes	Yes	
IR03MW372A	E	449099.5	1459694.2	8.18	5	20	20.5	Yes	No	
IR03MW373B	E	449102.94	1459705.89	7.87	75	85	85.5	Yes	Yes	
IR03MWO-1	E	449001.74	1459633.43	11.92	2.5	17.5	17.5	Yes	No	
IR03MWO-2	E	448876.38	1459600.68	11.55	3.5	20	20.5	Yes	No	
IR03MWO-3	E	448975.07	1459514.31	9.22	4	19	19	Yes	No	
IR04MW13A	E-2	450972.31	1458394.71	12.55	5	20	20	Yes	Yes	
IR04MW31A	E-2	450800.16	1458293.32	12.53	11	26	26	Yes	No	
IR04MW36A	E-2	451298.96	1458528.1	9.84	6	26	26	Yes	Yes	
IR04MW37A	E	451395.22	1458812.73	9.54	7.5	22.5	22.5	Yes	Yes	
IR04MW38A	E	451383.46	1458997.82	9.76	6	21	21	Yes	No	
IR04MW40A	E	451189.01	1458629.78	7.16	5	27	27	Yes	No	
IR05MW73A	E	450550.36	1459079.14	6.59	5.5	10.5	10.5	Yes	No	
IR05MW76A	E	450772.44	1458809.5	4.97	5	14	14	Yes	No	
IR05MW82A	E	450589.49	1458785.02	12.00	7	22	22	Yes	No	
IR05MW85A	E	450738.99	1459148.72	9.80	6	21	21	Yes	Yes	
IR06MW22A	C	452898.49	1460985.84	10.00	5	10	10	Yes	No	
IR06MW32A	C	452881.9	1461125.09	9.90	5	15	15	Yes	Yes	
IR06MW34A	C	452900.14	1461271.42	10.37	7	12	12	Yes	No	
IR06MW35A	C	452968.71	1460968.71	9.73	6	15	15	Yes	Yes	
IR06MW40A	C	453012.98	1461127.73	10.08	7	20.5	20.5	Yes	Yes	
IR06MW41A	C	452965.42	1461190.12	9.78	7	17	17	Yes	No	

Table 1-1. Compliance well construction and sampling information.

Well ID	Parcel	Northing	Easting	TOC elevation (ft MSL)	TOS depth (ft bgs)	BOS depth (ft bgs)	Casing TD (ft bgs)	SAP required DTW?	SAP required sampling?	Comment
IR06MW42A	C*	452872.19	1461317.85	11.89	8.5	13.5	13.5	Yes	Yes	
IR06MW44A	C	453083.82	1461187.35	9.81	5	15	15	Yes	No	
IR06MW45A	C*	453071.69	1461364.35	9.89	4	14	14	Yes	Yes	Decommissioned (2006)
IR06MW46A	B	453055.28	1460945.44	9.46	7	17	17	Yes	No	
IR06MW47F	C	452994.51	1461118.14	9.66	30	40	40	Yes	Yes	
IR06MW49F	C	452808.23	1461248.19	11.49	9	19	19	Yes	No	
IR06MW50F	C	452878.48	1461261.81	10.38	20	30	30.5	Yes	Yes	Decommissioned (2006)
IR06MW52F	C	452968.59	1460965.6	9.70	19	29	29.5	Yes	Yes	
IR06MW53F	C	452922.46	1460908.13	10.51	14	24	24.5	No	Yes	
IR06MW54F	C	452760.77	1460933.96	35.02	42	52	52.5	Yes	Yes	
IR06MW55F	C	452749.85	1461100.11	32.34	36	46	46.5	Yes	Yes	
IR06MW56F	C	452734.33	1461276.93	25.04	33.5	43.5	44	Yes	No	
IR06MW57F	C	452665.77	1461195.82	28.02	30	40.5	40.5	Yes	No	
IR06MW58F	C	452645.33	1461063.91	25.91	28	38	38.5	Yes	No	Decommissioned
IR06MW59A1	C	452960.31	1461070.15	9.46	5	10	10	Yes	Yes	
IR06MW59A2	C	452956.32	1461071.6	9.50	20	30	30	No	Yes	
IR07MW19A	B	453874.18	1460508.9	9.56	6	16	16	Yes	Yes	
IR07MW20A1	B	453944.26	1460379.24	9.26	6	24	24	Yes	Yes	
IR07MW21A1	B	453941.51	1459683.7	13.89	6	16	16.5	Yes	Yes	
IR07MW23A	B	453693.82	1459476.14	15.76	7	17	17	Yes	Yes	
IR07MW24A	B	453884.37	1459749.67	16.26	5	15	15	Yes	Yes	
IR07MW25A	B	453990.88	1459624.7	12.67	8	18	18	Yes	Yes	
IR07MW26A	B	453900.68	1460093.3	14.50	5	15	15	Yes	Yes	
IR07MW27A	B	453649.86	1459864.33	16.15	11	21	21.5	Yes	Yes	
IR07MW28A	NNP	453984.94	1459539.08	12.03	5	15	15.5	Yes	Yes	
IR07MW93A	B	453533.2	1459686.3	19.53	9	29	29	Yes	No	
IR07MW94A	B	453749.3	1459659.7	15.15	14	24	25	Yes	No	

**Table 1-1. Compliance well construction and sampling information.**

Well ID	Parcel	Northing	Easting	TOC elevation (ft MSL)	TOS depth (ft bgs)	BOS depth (ft bgs)	Casing TD (ft bgs)	SAP required DTW?	SAP required sampling?	Comment
IR07MW95A	NNP	453827.3	1459415.2	16.60	11	21	21	Yes	No	
IR07MWS-2	B	453860.98	1460286.15	12.71	5.5	15.5	15.5	Yes	Yes	
IR07MWS-3	B	453983.55	1460068.55	9.75	5	20	20	Yes	No	Decommissioned (1998)
IR07MWS-4	B	453825.23	1459913.2	16.78	6	16	16	Yes	Yes	
IR08MW38A	D	449844.08	1460353.82	6.82	6.5	24.5	24.5	Yes	No	
IR08MW40A	E	449616.38	1460446	5.41	8	28	28	Yes	No	
IR08MW44A	E	450028.23	1460125.99	5.94	6	21	21.5	Yes	No	
IR08MWW-6	D	449678.77	1460750.86	4.88	10.5	20.5	20.5	Yes	No	
IR09MW31A	D	451129.41	1460221.19	8.42	7	12	12	Yes	No	
IR09MW35A	D	450896.82	1460167.05	8.71	8	19	19	Yes	Yes	
IR09MW36A	D	450865.77	1460016.4	8.87	11	21	21	Yes	Yes	
IR09MW37A	D	451041.25	1459968.89	9.15	7.5	14	14	Yes	Yes	
IR09MW38A	D	451125.17	1460065.84	9.02	7.5	12.5	12.5	Yes	Yes	
IR09MW39A	D	451045.17	1460109.18	8.18	13.1	23.1	23.1	Yes	Yes	
IR09MW44A	D	450794.91	1460113.91	8.78	7.5	17.5	17.5	Yes	No	
IR09MW45F	D	451332.34	1460176.89	8.46	7	17	17.5	Yes	Yes	
IR09MW51F	D	451311	1459991	8.64	6	21	21.5	Yes	Yes	
IR09MW52A	D	450969	1459852	9.59	5.75	20.75	21	Yes	No	
IR09MW54B	D	451173.52	1460215.56	9.26	25	29	29	Yes	Yes	
IR09MW55B	D	450901.16	1460174.42	9.07	35	44	44	Yes	No	
IR09MW61A	D	451307.04	1459624.4	8.49	10	20	20	Yes	Yes	
IR09MW62A	D	451126.16	1459801.7	8.50	10	20	20	Yes	Yes	
IR09MW63A	D	451417.55	1459832.39	8.66	10	20	20	Yes	Yes	
IR09P040A	D	450857.02	1460365.6	9.05	10.8	15.8	15.8	No	Yes	
IR09PPY1	D	451193.63	1460025.14	8.78	7	12	12	No	Yes	
IR10MW12A	B	453434.25	1460715.61	9.08	3	18	18	Yes	Yes	Decommissioned (2006)
IR10MW13A1	B	453493.91	1460949.27	9.92	5	20	20.5	Yes	Yes	

Table 1-1. Compliance well construction and sampling information.

Well ID	Parcel	Northing	Easting	TOC elevation (ft MSL)	TOS depth (ft bgs)	BOS depth (ft bgs)	Casing TD (ft bgs)	SAP required DTW?	SAP required sampling?	Comment
IR10MW14A	B	453314.1	1461123.44	10.23	5	20	20	Yes	Yes	
IR10MW28A	B	453331.55	1460886.65	13.57	7	17	17	Yes	Yes	
IR10MW29A1	B	453398.31	1461092.66	9.15	5	15	15	Yes	No	
IR10MW31A1	B	453615.9	1461025.8	10.34	7	17	17	Yes	Yes	
IR10MW32A	B	453576.62	1460834.19	9.77	6	21	21	Yes	No	
IR10MW33A	B	453449.25	1460845	10.17	5.5	15.5	15.5	Yes	Yes	
IR10MW59A	B	453416.1	1460841.8	13.79	8.5	17.5	17.5	Yes	Yes	
IR10MW61A	B	453432.71	1460925.53	10.05	11	21	21	Yes	Yes	
IR10MW62A	B	453481.77	1460884.45	9.53	11	21	21	No	Yes	
IR10MW71A	B	453394.48	1460873.32	13.87	14	24	24	No	Yes	
IR10MW76A	B	453416.1	1460787.15	13.83	8	18	18	No	Yes	
IR10MW79A	B	453409	1460998	10.11	11	21	21	Yes	Yes	
IR10MW80A	B	453468	1461004	9.67	11	21	21	Yes	Yes	
IR11MW25A	E	448959.29	1460519.68	11.40	4	10	10	Yes	Yes	
IR11MW26A	E	448816.7	1460536.86	9.33	5	9	9	Yes	No	
IR11MW27A	E	448899.06	1460394.84	9.88	5	10	10	Yes	Yes	
IR12MW11A	E-2	450553.71	1458252.05	11.68	4	17	17	Yes	No	
IR12MW12A	E	450391.33	1458364.05	8.40	4	17	17	Yes	No	
IR12MW13A	E	450641.99	1458525.2	12.52	4.5	19.5	19.5	Yes	Yes	
IR12MW14A	E	450885.25	1458524.47	9.23	5	20	20	Yes	Yes	
IR12MW15A	E	451094.82	1458904.36	7.28	5	20	20	Yes	No	
IR12MW16A	E	451151.21	1459088.89	8.57	6	16	16	Yes	No	
IR12MW17A	E	450592.37	1458435.38	12.46	5	15	15	Yes	Yes	
IR12MW20A	E	450478.54	1458568.79	12.27	6	21	21	Yes	No	
IR12MW21A	E	450988.49	1458773.04	10.42	5	20	20	Yes	Yes	
IR13MW12A	E	449527.03	1459518.04	4.12	5	18	18	Yes	No	
IR13MWB5A-W	E	449886.42	1459369.84	5.93	3	13	15	Yes	No	

**Table 1-1. Compliance well construction and sampling information.**

Well ID	Parcel	Northing	Easting	TOC elevation (ft MSL)	TOS depth (ft bgs)	BOS depth (ft bgs)	Casing TD (ft bgs)	SAP required DTW?	SAP required sampling?	Comment
IR14MW09A	E	449144.6	1460064.43	9.93	5	13	13	Yes	No	
IR14MW10A	E	449298.6	1459987.15	8.89	4.8	14.8	14.8	Yes	No	
IR14MW12A	E	449397.63	1460394.77	8.52	5	16.5	16.5	Yes	No	
IR15MW06A	E	448967.51	1460317.17	11.11	6	19	19	Yes	Yes	
IR15MW07A	E	449139.09	1460712.87	11.18	5	18	18	Yes	No	
IR15MW10F	E	448809.05	1460586.88	10.98	18	28	28	Yes	Yes	
IR17MW11A	D	449018.79	1461248.45	7.85	4.3	17.3	17.3	Yes	No	
IR17MW12A	D	448702.95	1461275.71	7.72	4.5	17.3	17.3	Yes	No	
IR17MW13A	D	448801.65	1461433.94	6.98	4.5	17.5	17.5	Yes	No	
IR18MW100B	B	453579.54	1459329.1	17.94	40	45	47	Yes	No	
IR18MW101B	B	453573.7	1459432	18.89	37	42	45	Yes	No	
IR18MW200A	NNP	453615.58	1459217.8	26.96	18	33	33	Yes	No	
IR18MW21A	B	453595.74	1459304.9	17.56	10	20	20	Yes	Yes	
IR18MW91A	NNP	453502.4	1459168.3	18.75	13	23	23.5	Yes	No	
IR18MW92A	B	453446.9	1459396.7	20.7	17	27	27	Yes	No	
IR20MW17A	B	453190.62	1461540.19	10.51	7	22	22	Yes	No	
IR22MW07A	D	450786.73	1461477.2	7.74	7	22	22	Yes	No	
IR22MW08A	D	450863.92	1461203.01	8.77	6	21	21	Yes	No	
IR22MW15A	D	450628.06	1461060.8	10.83	7	22	22	Yes	No	
IR22MW16A	D	450477.73	1461285.16	7.86	7	22	23	Yes	Yes	
IR22MW20A	D	450697.66	1461263.17	7.84	6	21	21.5	Yes	Yes	
IR24MW06A	B	453410.09	1461597.2	10.25	5	20	20	Yes	No	
IR25EW01A	B	453081.1	1461214.5	10.81	6	16	16	Yes	No	
IR25MW11A	C	453039.62	1461215.62	10.45	5	20	20	Yes	No	
IR25MW16A	C	452978.43	1461319.09	11.02	6	21	21.5	Yes	Yes	
IR25MW17A	C*	453179.91	1461269.8	10.31	5.5	21	21	Yes	Yes	
IR25MW18A	C	453100.59	1461221.47	10.46	11	16	16	Yes	No	Decommissioned (2004)

Table 1-1. Compliance well construction and sampling information.

Well ID	Parcel	Northing	Easting	TOC elevation (ft MSL)	TOS depth (ft bgs)	BOS depth (ft bgs)	Casing TD (ft bgs)	SAP required DTW?	SAP required sampling?	Comment
IR25MW20A	C	453066.29	1461199.09	10.48	8	13	13	Yes	No	Decommissioned (2005)
IR25MW37A	C*	453205.58	1461207.98	10.07	7	16	16	Yes	Yes	
IR25MW37B	C	453200.21	1461204	10.21	20	23	23	Yes	No	
IR25MW38B	C	453194.38	1461285.9	10.44	30	34	34	Yes	No	
IR25MW39A	C	453034.39	1461259.39	11.21	7	14	14	Yes	No	
IR25MW39B	C	453025.27	1461272.67	11.25	19	25	25	Yes	No	
IR25MW40A	C	452919.66	1461174.68	9.72	5	15	15	No	Yes	
IR25MW41A	C	453073.47	1461371.58	10.08	21.5	26.5	26.5	No	Yes	
IR25MW42B	C	453085.53	1461185.17	10.01	24.5	28	28	Yes	No	
IR25MW50A	C	452972.32	1461436.2	10.02	5	12	13	Yes	No	
IR25MW52A	C	453106.02	1461324.12	10.06	5.2	14	15	No	Yes	Decommissioned (2006)
IR25MW53A	C	453069.7	1461230	11.07	11	15.5	16	Yes	No	
IR25MW54A	C	453074.2	1461224.2	11.12	11	15.25	16	Yes	No	
IR25MW55A	C	453092.9	1461217.3	10.39	7.5	16.75	17.5	Yes	No	
IR25MW60A1	C	453141.81	1461225.76	9.57	14	24	24	Yes	Yes	
IR25MW60A2	C	453142.26	1461235.84	9.48	30	40	41	Yes	Yes	Decommissioned (2006)
IR25MW61A1	B*	453212.53	1461365.58	9.56	18	28	28	Yes	Yes	
IR25MW61A2	B*	453206.41	1461374.36	9.67	28	33	33	Yes	Yes	
IR25MW900B	C	453063.38	1461213.98	11.02	19	28	28	Yes	No	
IR25MW901B	C	453066.51	1461216.05	10.98	19	28	28	Yes	No	
IR25MW902B	C	453067.94	1461217.23	11.02	18	28	28	Yes	No	
IR26MW40A	B	453255.18	1461821.88	9.89	6	26	26.5	Yes	No	
IR26MW41A	B	453170.16	1461730.13	10.15	6	21	21.5	Yes	Yes	
IR26MW43A	B	453117	1461949	7.09	6	16	16.5	Yes	No	
IR26MW44A	B	452993	1461781	8.25	6	13	14	Yes	No	
IR26MW45A	B	453031.99	1462451.8	8.28	6.5	16.5	16.5	No	Yes	Decommissioned (2001)
IR26MW46A	B	453140.89	1462431.1	8.08	7	17	18	Yes	Yes	

Table 1-1. Compliance well construction and sampling information.

Well ID	Parcel	Northing	Easting	TOC elevation (ft MSL)	TOS depth (ft bgs)	BOS depth (ft bgs)	Casing TD (ft bgs)	SAP required DTW?	SAP required sampling?	Comment
IR26MW47A	B	453141.7	1462633	7.75	5	15	15	Yes	Yes	
IR26MW48A	B	453015.53	1462497	8.13	9	19	20	Yes	Yes	
IR26MW49A	B	453160.04	1462658.08	7.99	4.5	14.5	15	Yes	Yes	
IR26MW50A	B	453249.55	1462491.61	7.42	4.5	14.5	15	Yes	Yes	
IR28MW122A	C	452442.31	1463091.72	7.48	6	21.5	21.5	Yes	Yes	
IR28MW123A	C	452247.64	1463010.31	8.09	6	21	21	Yes	No	
IR28MW125A	C	452599.43	1462807.72	7.74	5.5	17.5	17.5	Yes	Yes	
IR28MW126A	C	452539.64	1462590.14	7.76	5.5	21	21	Yes	No	
IR28MW127A	C	452452.55	1462457.87	7.63	6	21.5	21.5	Yes	No	
IR28MW136A	C	452390.17	1462774.94	7.55	5	15.5	15.5	Yes	Yes	
IR28MW140F	C	452634.91	1463039.04	7.66	29	44.5	44.5	Yes	Yes	
IR28MW150A	C	452137.62	1462857.71	7.87	6	21.5	21.5	Yes	Yes	
IR28MW151A	C	452169.83	1462589.71	8.57	6	21.5	21.5	Yes	Yes	
IR28MW155A	C	452204.2	1462424.04	8.57	6	21.5	21.5	Yes	Yes	
IR28MW169A	C	452128.38	1462258.98	9.69	6	21.5	21.5	Yes	Yes	
IR28MW170A	C	452221.24	1462783.8	8.76	5.4	20.5	20.5	Yes	No	
IR28MW171A	C	451820.32	1462451.58	6.67	6	21.5	21.5	Yes	Yes	
IR28MW171B	C	451839.14	1462446.92	7.19	50	60	60	Yes	Yes	
IR28MW172F	C	452077.73	1461964.61	8.57	57	67	67.5	Yes	Yes	
IR28MW173B	C	452216.07	1462605.49	8.06	49.5	59.5	60	Yes	Yes	
IR28MW188F	C	452231.64	1461506.05	9.64	8.5	22	22	Yes	Yes	
IR28MW189F	C	452297.76	1461747.42	8.87	7.5	17.5	17.5	Yes	Yes	
IR28MW190F	C	452102.47	1461715.85	10.06	13	16.3	16.3	Yes	Yes	
IR28MW200A	C	451703.7	1461977.64	8.28	5.5	16	16	Yes	Yes	
IR28MW201F	C	451708.35	1461993.94	8.04	25	35	35.5	Yes	Yes	
IR28MW211F	C	451866.27	1461768.98	8.90	6	16.5	16.5	No	Yes	
IR28MW216F	C	452033.12	1461799.63	8.38	18	28.5	28.5	Yes	Yes	

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Well ID	Parcel	Northing	Easting	TOC elevation (ft MSL)	TOS depth (ft bgs)	BOS depth (ft bgs)	Casing TD (ft bgs)	SAP required DTW?	SAP required sampling?	Comment
IR28MW217A	C	452069.68	1461929.39	8.98	6	20	20	Yes	Yes	
IR28MW221A	C	452067.98	1462259.16	9.56	10	20	20	Yes	Yes	
IR28MW221B	C	452072.4	1462269.76	9.58	33	43	43	Yes	Yes	
IR28MW255F	C	452458.44	1462459.54	7.83	40	55.5	55.5	Yes	Yes	
IR28MW268A	C	452518	1462440	7.90	6	21	21.5	Yes	Yes	
IR28MW270A	C	452251	1463116	7.61	6	21	21.5	No	Yes	
IR28MW271A	C	451900	1463030	7.06	6	21	21.5	Yes	No	
IR28MW272A	C	451571	1461950	7.85	6.5	11.5	12	Yes	Yes	
IR28MW272F	C	451572.63	1461933.07	8.19	50	60	60	Yes	Yes	
IR28MW286A	C	452226	1462036	9.81	6	11	11.5	Yes	No	
IR28MW287A	C	452342	1462012	9.31	5	10	10.5	Yes	Yes	
IR28MW290A	C	451958	1462082	8.14	6	21	21.5	Yes	No	Decommissioned
IR28MW294A	C	451611	1462222	7.78	6	21	21.5	No	Yes	
IR28MW297A	C	451590	1462275	7.68	6	21	21.5	Yes	No	
IR28MW298A	C	451627	1461779	8.04	4.5	9.5	10	Yes	Yes	
IR28MW299B	C	452198	1461918	9.60	6	21	21.5	Yes	Yes	
IR28MW300F	C	452187	1461775	9.67	6	21	21.5	No	Yes	
IR28MW308A	C	452441	1462277	7.63	6	16	16.5	Yes	Yes	
IR28MW309B	C	452005.11	1462349.1	9.06	39.5	54.5	55	Yes	Yes	
IR28MW310F	C	451895.21	1461821.11	7.62	26	36	36.5	Yes	No	
IR28MW311A	C	451890	1461825	8.02	4	19	19.5	Yes	Yes	
IR28MW311A-R1	C	451890.04	1461824.4	7.90	4	19	19	Yes	No	
IR28MW312F	C	451700	1461874	8.45	9	19	19.5	No	Yes	
IR28MW313F	C	452317	1461416	12.17	10	25	25.5	Yes	No	
IR28MW314B	C	452393	1462784	8.68	20	25	25.5	Yes	No	
IR28MW315A	C	451893.67	1461923.43	8.84	5	10	10	Yes	Yes	
IR28MW315B	C	451879.25	1461921.22	9.03	22	32	32	Yes	Yes	

Table 1-1. Compliance well construction and sampling information.

Well ID	Parcel	Northing	Easting	TOC elevation (ft MSL)	TOS depth (ft bgs)	BOS depth (ft bgs)	Casing TD (ft bgs)	SAP required DTW?	SAP required sampling?	Comment
IR28MW315F	C	451864.69	1461930.68	8.97	65	75	75	Yes	Yes	
IR28MW324A	C	452435.66	1462693.77	8.79	8	13	13	Yes	No	Decommissioned
IR28MW326A	C	452471.27	1462820.35	8.75	8	13	13	Yes	No	Decommissioned
IR28MW333A	C	452437.19	1462871.05	8.71	8	13	13	Yes	No	Decommissioned
IR28MW334A	C	452401.86	1462774.85	8.78	8	13	13	Yes	No	
IR28MW338A	C	452340.47	1462713.27	8.83	8	13	13	Yes	No	
IR28MW339A	C	452343.29	1462783.78	8.47	8	13	13	Yes	No	
IR28MW340A	C	452360.34	1462847.94	8.65	8	13	13	Yes	No	
IR28MW342F	C	451867.45	1461746.34	8.86	8	15	15	Yes	No	
IR28MW350F	C	451950.45	1461773.18	9.83	19.7	29	30	Yes	Yes	
IR28MW351F	C	451859.98	1461772.38	9.00	51	59	60	Yes	No	
IR28MW352A	C	451821.07	1461860.98	8.05	7	11.25	12	Yes	Yes	
IR28MW353A	C	452080.02	1462692.2	8.19	6	20	21	Yes	Yes	
IR28MW353B	C	452079.69	1462710.44	7.33	43	53	60	Yes	Yes	
IR28MW354B	C	452217.9	1462580.1	8.19	26	31	31.4	Yes	No	
IR28MW355F	C	451849.02	1461719.97	9.03	10.6	19.75	20.5	No	Yes	
IR28MW394A	C	451865.74	1462091.87	9.26	5	11	11	Yes	Yes	
IR28MW394B	C	451857.97	1462092.93	9.02	45	54.5	54.5	Yes	Yes	
IR28MW395F	C	452069.61	1461921.34	9.12	47.5	51.5	51.5	Yes	Yes	
IR28MW396A	C	452136.33	1462148.78	8.99	5	11.5	11.5	Yes	Yes	
IR28MW396B	C	452138.8	1462142.58	9.09	32.5	42	42	Yes	Yes	
IR28MW397A	C	452310.07	1461984.73	9.13	3	8	8	Yes	No	
IR28MW397B	C	452311.84	1461998.79	9.37	33.5	37	37	Yes	Yes	
IR28MW398A	C	452417.97	1462145.19	9.33	5	9	9	Yes	Yes	
IR28MW398B	C	452424.21	1462151.68	8.92	38.5	43	43	Yes	Yes	
IR28MW399B	C	452328.33	1462779.65	7.82	36.5	40.5	40.5	Yes	Yes	
IR28MW400B	C	452229.69	1462804.12	8.88	25	28	28	Yes	No	

**Table 1-1. Compliance well construction and sampling information.**

Well ID	Parcel	Northing	Easting	TOC elevation (ft MSL)	TOS depth (ft bgs)	BOS depth (ft bgs)	Casing TD (ft bgs)	SAP required DTW?	SAP required sampling?	Comment
IR28MW401B	C	452323.26	1462527.7	8.58	57	60.75	61	Yes	No	
IR28MW406A	C	451876.76	1461713.33	8.59	15	25	25	No	Yes	
IR28MW407A	C	451896.79	1461768.65	8.36	14	24	24	No	Yes	
IR28MW910A	C	452345.66	1461874.71	8.93	19	25	25	Yes	No	
IR28MW914A	C	452331.26	1461883.76	9.45	10	17	17	Yes	No	
IR28MW932F	C	451878.24	1461757.32	8.87	27	30	30	Yes	No	
IR28MW933F	C	451848.33	1461773.15	9.02	9.5	30	30	Yes	No	
IR28MW934F	C	451853.69	1461747.7	9.05	9.5	30	30	Yes	No	
IR29MW48A	C	451611.61	1461535.91	8.04	4.5	10	10	Yes	No	
IR29MW56F	C	451580.63	1461636.75	8.15	6	15	15	No	Yes	
IR29MW57A	C	451754.4	1461589.76	7.67	5	11	11	Yes	No	Decommissioned
IR29MW58F	C	451768.53	1461587.2	8.54	15	19	19	Yes	Yes	
IR29MW59F	C	451397.07	1461774.92	8.21	15	25	25.5	No	Yes	
IR29MW72F	C	452015.08	1461313.69	9.27	6	26	26.5	No	Yes	
IR29MW84A	C	451331	1461736	8.09	6	11	11.5	Yes	No	
IR29MW85F	C	451968	1461530	9.66	6.5	21.5	22	Yes	Yes	
IR30MW01F	C	452105.95	1461116.08	8.92	5.6	19.5	20.5	Yes	No	
IR30MW03F	C	452084.53	1461234.04	8.89	5.6	19.5	20.5	Yes	No	
IR30MW04F	C	451913.42	1461240.86	8.96	5.6	19.5	20.5	Yes	Yes	
IR33MW116A	D	451038	1460314	8.38	6	21	21.5	Yes	No	
IR33MW120B	D	450461.72	1460272.42	9.45	67	71	71	Yes	No	
IR33MW121B	D	450236.7	1460267.8	7.20	69	73	73	Yes	No	
IR33MW61A	D	451372.52	1460665.32	12.26	3.5	18	18.5	Yes	Yes	
IR33MW62A	D	451365.48	1460383.21	8.21	5	15	15.5	Yes	No	
IR33MW63A	D	450286.29	1460464.88	7.80	6	21	21.5	Yes	No	
IR33MW64A	D	451393.6	1460584.79	9.30	6	12	12	Yes	No	
IR33MW65A	D	451292.17	1460515.99	8.32	6	16	16.5	Yes	No	

**Table 1-1. Compliance well construction and sampling information.**

Well ID	Parcel	Northing	Easting	TOC elevation (ft MSL)	TOS depth (ft bgs)	BOS depth (ft bgs)	Casing TD (ft bgs)	SAP required DTW?	SAP required sampling?	Comment
IR33MW66A	D	451286.8	1460642.52	8.91	6	21	21.5	Yes	No	
IR34MW01A	D	451139.81	1460666.5	8.62	5.5	15.5	16	Yes	No	
IR34MW02A	D	450665.26	1460765.36	8.03	6	21	21.5	Yes	No	
IR34MW36A	D	451107.5	1460496.54	8.80	9.1	18.1	18.1	Yes	No	
IR34MW36B	D	451102.04	1460505.76	9.23	24	33	33	Yes	No	
IR34MW37A	D	450973.94	1460818.33	8.78	6	20	20	Yes	No	
IR34MW37B	D	450978.74	1460811.48	8.60	30	34	34	Yes	No	
IR35MW01A	D	450837.82	1461016.5	8.85	5.5	20.5	21	Yes	No	
IR36MW09A	E	450486.94	1459414	5.00	5.5	20.5	21	Yes	No	
IR36MW11A	E	450184.64	1458989.17	8.55	6	21	21.5	Yes	Yes	
IR36MW120B	E	450679	1459376	7.05	58	73	73.5	Yes	Yes	
IR36MW121A	E	450681	1459370	6.96	15	30	30.5	Yes	Yes	
IR36MW122A	E	450610	1459716	7.64	17.5	32.5	33	Yes	Yes	
IR36MW123B	E	450617	1459719	7.55	50	65	65.5	Yes	Yes	
IR36MW125A	E	450539	1459423	6.55	4.5	9.5	10	Yes	Yes	
IR36MW126A	E	450483	1459441	5.16	4	9	9.5	Yes	Yes	
IR36MW127A	E	450538	1459376	6.45	6	26	26.5	Yes	Yes	
IR36MW128A	E	450362	1459784	8.01	6	21	21.5	Yes	Yes	
IR36MW129B	E	450362	1459778	7.80	54.5	69.5	70	Yes	Yes	
IR36MW12A	E	450044.49	1459108.25	7.18	6	21	21.5	Yes	Yes	
IR36MW135A	E	450032	1458949	7.85	6	26	26.5	Yes	No	
IR36MW137A	E	450321	1459313	7.76	4	5.5	6	Yes	No	
IR36MW14A	E	450187.95	1459464.23	5.52	6	16	16.5	Yes	No	
IR36MW15A	E	450721.17	1459321	7.04	6	21	21.5	Yes	No	
IR36MW16A	D	450481.39	1459903.7	8.26	6	26	26.5	Yes	Yes	
IR36MW17A	E	450762.29	1459538.12	8.36	6	21	21.5	Yes	Yes	
IR37MW01A	D	450931.2	1459697.63	7.59	6	21	21.5	Yes	No	

Table 1-1. Compliance well construction and sampling information.

Well ID	Parcel	Northing	Easting	TOC elevation (ft MSL)	TOS depth (ft bgs)	BOS depth (ft bgs)	Casing TD (ft bgs)	SAP required DTW?	SAP required sampling?	Comment
IR37MW26B	D	450935.68	1459690.47	8.14	30	35	35	Yes	No	
IR38MW01A	E	449948.94	1459798.96	4.28	14	34	34.5	Yes	No	
IR38MW02A	E	449711.97	1459636.32	2.88	10	30	30.5	Yes	No	
IR38MW03A	E	449836.01	1459908.07	4.00	6	21	21.5	Yes	No	
IR39MW21A	E	449855.96	1459475.49	7.92	6	13	13	Yes	Yes	
IR39MW22A	E	449828.04	1459199.84	6.34	5.4	20.4	20.5	Yes	No	
IR39MW23A	E	449960.44	1459396.17	5.61	6	21	21.5	Yes	Yes	
IR39MW24A	E	450029.54	1459497.72	4.80	6	16	16.5	Yes	No	
IR39MW33A	E	449655	1459322	4.31	6	24	24.5	Yes	Yes	
IR39MW36A	E	449917	1459544	4.66	6	26	26.5	Yes	Yes	
IR44MW08A	D	450228	1460271	7.24	5	15	15.5	Yes	Yes	
IR46MW37A	B	453313.79	1461359.15	9.58	6	21	21	Yes	Yes	
IR46MW38A	B	453446.11	1461236.22	9.78	6	21	21	Yes	No	
IR46MW39A	B	453696.82	1461196.22	9.75	6	21	21	Yes	No	
IR46MW41A	B	453315.08	1461733.3	9.57	6	21	21.5	Yes	No	
IR46MW43A	B	453865.93	1460868.23	8.98	6	21	21	Yes	No	
IR46MW46A	B	453729	1461225	9.61	6	21	21.5	Yes	No	
IR46MW47A	B	453641	1461337	9.69	6	21	21.5	Yes	No	
IR46MW48A	B	453542	1461472	8.89	6	21	21.5	Yes	No	
IR50MW13F	C	451706.28	1461287.91	7.68	6	16	16.5	Yes	No	
IR50MW15A	D	449294.77	1461148.8	6.84	5.3	20.3	20.8	Yes	No	
IR55MW01A	D	449724.63	1460981.89	5.14	4.5	14.5	14.5	Yes	No	
IR55MW02A	D	449837.45	1461258.09	7.27	6	21	21.5	Yes	No	
IR55MW04A	D	449459.46	1461111.22	4.80	6	21	21.5	Yes	No	
IR56MW39A	E	451444.1	1458903.58	9.84	6	21	21.5	No	Yes	
IR58MW24F	C	452594.52	1461436.65	15.48	13	23.5	23.5	Yes	No	
IR58MW25F	C	452406.88	1461694.64	9.72	17	27.5	27.5	Yes	Yes	

Table 1-1. Compliance well construction and sampling information.

Well ID	Parcel	Northing	Easting	TOC elevation (ft MSL)	TOS depth (ft bgs)	BOS depth (ft bgs)	Casing TD (ft bgs)	SAP required DTW?	SAP required sampling?	Comment
IR58MW26A	C	452434.08	1461881.65	8.24	6	21.5	21.5	Yes	Yes	
IR58MW31A	C	452327.63	1461866.28	8.97	5	15.5	15.5	Yes	Yes	
IR58MW31F	C	452325.68	1461858.37	9.22	54.5	59	60	Yes	Yes	
IR58MW32B	C	452383	1461949	8.77	9.5	24.5	25	Yes	Yes	
IR58MW33B	C	452331	1461867	9.06	18	25	25	Yes	Yes	
IR60MW08A	B	453842	1460745	9.40	6	21	21.5	Yes	No	Decommissioned (2006)
IR61MW05A	B	453484	1460621	10.11	6	21	21.5	Yes	Yes	
IR62MW07A	B	453364	1460435	10.20	6.5	21.5	21.5	Yes	No	
IR62MW08A	B	453176	1460458	10.35	6	16	17	Yes	No	
IR64MW05A	C	452600	1462163	7.83	5	10	10.5	Yes	Yes	
IR67MW04A	D	450283	1459904	8.17	6	21	21.5	Yes	No	
IR70MW04A	D	450070	1460746	9.82	6	21	21.5	Yes	Yes	
IR70MW07A	D	450042	1460969	10.94	5	20	20.5	No	Yes	
IR70MW11A	D	449845	1460936	9.04	6	21	21.5	Yes	No	
IR70MW12A	D	449990	1461100	8.44	6	21	21.5	Yes	No	
IR71MW03A	D	450402	1460718	8.31	6	21	21.5	Yes	Yes	
IR71MW04A	D	450535.77	1460579.1	7.70	10	20	20	Yes	Yes	
IR71MW12B	D	450397.77	1460725.29	8.23	91	100	100	Yes	Yes	
IR72MW32A	E	451478	1458760	10.08	6	21	21.5	Yes	No	
IR72MW33A	E	451726	1458282	12.00	6	21	21.5	Yes	No	
IR73MW04A	E	448731	1460898	13.48	6	21	21.5	Yes	No	
IR74MW01A	E	451739	1458711	13.16	10.5	15.5	16	Yes	Yes	
IR75MW05B	NNP	452234	1457022	15.57	11	21	21.5	Yes	Yes	
IR76MW13A	NNP	452147	1457665	19.69	9	24	24.5	Yes	Yes	
PA16MW17A	D	448951.05	1460992.25	8.45	4	16.5	16.5	Yes	No	
PA16MW18A	D	449007.88	1461032	8.37	5.3	20.3	20.3	Yes	No	
PA18MW08A	NNP	453293.88	1459336.46	24.67	10	25	25	Yes	No	Decommissioned (1991)

**Table 1-1. Compliance well construction and sampling information.**

Well ID	Parcel	Northing	Easting	TOC elevation (ft MSL)	TOS depth (ft bgs)	BOS depth (ft bgs)	Casing TD (ft bgs)	SAP required DTW?	SAP required sampling?	Comment
PA24MW02A	B	453612.49	1461318.15	9.46	6	21.5	21.5	Yes	No	Decommissioned
PA28MW51A	C	452324.96	1462521.15	8.41	6	26.5	26.5	Yes	No	
PA28P04A	C	452323.43	1462274.53	8.61	5	18.5	18.5	No	Yes	
PA32MW04A	D	449778.34	1461767.39	7.05	5.5	25.5	26	Yes	No	
PA33MW36A	D	450576.96	1460454.07	9.24	6	21	21	Yes	No	
PA33MW37A	D	450453.82	1460265.97	9.27	6	21	21	Yes	No	
PA36MW01A	E	451045.21	1459275.38	7.64	6	21.5	21.5	Yes	Yes	
PA36MW02A	E	451040.15	1459443.45	8.02	6	21.5	21.5	Yes	No	
PA36MW04A	E	450362.74	1459550.85	7.33	5.5	21	21	Yes	No	
PA36MW05A	E	450149.11	1459672.93	7.40	5	25	25.5	Yes	No	Decommissioned
PA36MW07A	E	450454.59	1459330.48	6.80	5	20	20	Yes	Yes	
PA36MW08A	E	450119.87	1459220.35	7.65	6	21	21	Yes	Yes	
PA39MW01A	E	449679.96	1460061.44	4.53	6	26	26	Yes	No	
PA39MW02A	E	449507.34	1459823.54	6.13	4.5	25	25	Yes	No	
PA50MW01A	B	453658.2	1460792.22	9.18	6	16.2	16.2	Yes	Yes	
PA50MW02A	B	452949.76	1461934.39	7.80	6	16	16	Yes	No	
PA50MW03A	C	451894.37	1462779.63	7.03	4.5	14.5	14.5	Yes	Yes	
PA50MW04A	C	451730.49	1461288.61	7.56	4.5	13	13	Yes	No	
PA50MW05A	E	449286.04	1461067.57	6.07	5	11.5	11.5	Yes	No	
PA50MW06A	D	450121.63	1460287.66	7.64	5	15	15.5	Yes	No	
PA50MW07A	D	450212.1	1461120.11	8.71	5	12	12.5	Yes	Yes	
PA50MW08A	E	448959.93	1460838.13	7.48	5	13	13	Yes	No	
PA50MW09A	E	449927.09	1459573.18	5.00	5	15	15.5	Yes	No	
PA50MW10A	E	451320.9	1459194.9	8.45	5	18	18	Yes	No	
PA50MW11A	D	451387.46	1460759.71	7.66	5	17	17	Yes	No	
PA50MW12A	D	450938.32	1460037.1	8.62	5	16.5	16.5	Yes	Yes	
UT02MW15A	B	453338.16	1460317.32	12.57	4.5	19.5	19.5	Yes	No	

**Table 1-1. Compliance well construction and sampling information.**

<b>Well ID</b>	<b>Parcel</b>	<b>Northing</b>	<b>Easting</b>	<b>TOC elevation (ft MSL)</b>	<b>TOS depth (ft bgs)</b>	<b>BOS depth (ft bgs)</b>	<b>Casing TD (ft bgs)</b>	<b>SAP required DTW?</b>	<b>SAP required sampling?</b>	<b>Comment</b>
UT03MW11A	B	453634.94	1460185.06	9.94	5	20	20.5	Yes	Yes	
UT03MW12A	B	453575.93	1460331.93	10.10	6	21	21.5	Yes	No	

**Notes:**

**Acronyms/Abbreviations:**

**BOS:** Bottom of screen (from well log)

**ft bgs:** Feet below ground surface

**ft MSL:** Feet above mean sea level

**ID:** Identification number

**SAP:** Basewide Groundwater Monitoring Program Sampling and Analysis Plan (Tetra Tech, 2004)

**TD:** Total depth of casing (from well log)

**TOC:** Top of casing

**TOS:** Top of screen (from well log)

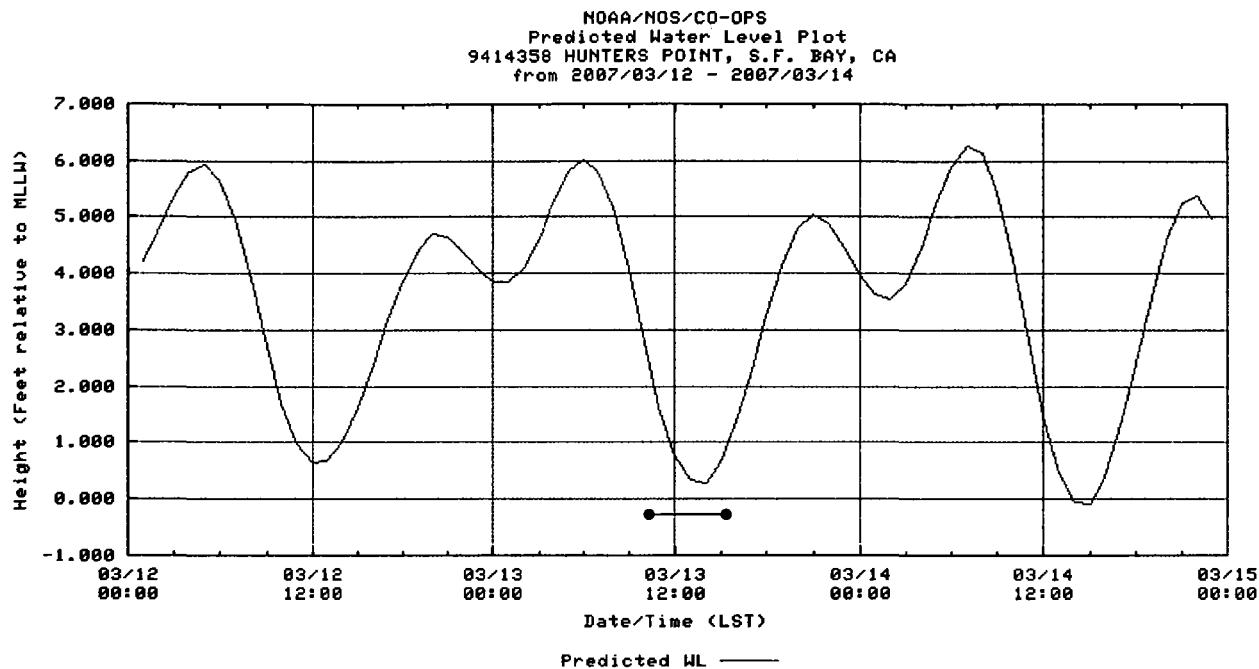
**Parcel:**

**B\*:** located in parcel B, but reported in the Parcels C, D and E report

**C\*:** located in parcel C, but included in the RAMP and reported in the Parcel B report

**NNP:** Non-Navy Property, reported by SAP assigned parcel

**Table 3-1. Tide plot and predictions for Hunters Point, March 12-14, 2007.**



**Notes:**

Tide elevation (ft MSL) can be calculated by subtracting 3.56 ft from MLLW (mean lower low water) height.  
Water levels measured between 1136 and 1536 on 03/13/07.  
Data from NOAA (2007).

Date	Time (local)	Tide	Height (feet, mean lower low water)
3/12/07	0448	high	5.940
3/12/07	1224	low	0.613
03/12/07	2018	high	4.721
03/13/07	0036	low	3.823
3/13/07	0606	high	6.020
3/13/07	1336	low	0.258
3/13/07	2106	high	5.063
3/14/07	0148	low	3.545
3/14/07	0718	high	6.278
3/14/07	1436	low	-0.133
3/14/07	2142	high	5.399

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Table 4-1. Summary of groundwater sampling information (January-March 2007).

Well ID	Parcel	Sample ID	Sample Date	Sample Time	Comments	EPA1601 TDS	EPA1602 TSS	EPA1664 Oil and Grease	EPA3000 Anions-Inorganics	EPA3501 Nitrogen-Ammonia	EPA3512 Nitrogen-Kjeldahl Total	EPA3761 Sulfide	EPA6010B Dissolved Metals	EPA7199 Hexavalent Chromium	EPA7470A Dissolved Mercury	EPA8015 Gas	EPA8015M Diesel or Motor Oil	EPA8082 PCBs	EPA8141A Organophosphorus Cpd and Pesticides	EPA8260B VOCs-8260	EPA8270C SVOCs-8270	EPA9010B Cyanide	FPD-GC Organotins	SM2520B Salinity	EPA 901.0 Radionuclides
IR01MW02B	NNP	0708A028	2/22/2007	0947		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR01MW03A	NNP	0708A029	2/22/2007	1106		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR01MW05A	NNP	0709H041	2/27/2007	1155		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR01MW09B	E-2	0708G036	2/22/2007	0956		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR01MW10A	E-2	0709H040	2/27/2007	0950		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR01MW17B	E-2				Obstructed.	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR01MW26B	E-2	0708G022	2/19/2007	1142		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR01MW31A	E-2	0709G044	2/27/2007	1049		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR01MW366A	E-2	0709G051	3/1/2007	1332		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR01MW366B	E-2	0708G026	2/20/2007	1014		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR01MW367A	E-2				Obstructed.	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR01MW38A	E-2	0708G021	2/19/2007	1010		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR01MW403A	NNP	0709G041	2/26/2007	1124		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR01MW403B	E-2				Inaccessible.	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR01MW42A	E-2	0708G031	2/21/2007	0952		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR01MW43A	E-2				Decommissioned.	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR01MW44A	E-2				Decommissioned.	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR01MW47B	E-2				Decommissioned.	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR01MW48A	E-2	0709G049	3/1/2007	0954		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR01MW53B	E-2	0709G050	3/1/2007	1050		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR01MW58A	E-2				Damaged.																				
IR01MW62A	E-2	0708W012	2/20/2007	1419		Q																			
IR01MW63A	E-2	0708W013	2/20/2007	1510		Q																			
IR01MWI-3	E-2				Decommissioned.	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR01MWI-6	E-2				Damaged.	Q																			
IR01MWI-7	E-2	0709G053	3/2/2007	0949		Q																			
IR01MWI-8	E-2	0708G032	2/21/2007	1204		Q																			
IR01MWLF1A	E-2	0709G043	2/27/2007	0915		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR01MWLF2A	E-2	0707G020	2/15/2007	1139		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR01MWLF4A	E-2				Inaccessible.	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR01MWLF4B	E-2	0708G025	2/20/2007	0850		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR02MW126A	E	0709W026	2/28/2007	1457		Q																			
IR02MW127B	E				Decommissioned.																				
IR02MW141A	E				Decommissioned.																				
IR02MW147A	E	0709L015	2/28/2007	1025		Q																			
IR02MW149A	E	0709L017	3/1/2007	1436		Q																			

**Table 4-1. Summary of groundwater sampling information (January-March 2007).**

Well ID	Parcel	Sample ID	Sample Date	Sample Time	Comments	EPA1601 TDS	EPA1602 TSS	EPA1664 Oil and Grease	EPA3000 Anions-Inorganics	EPA3501 Nitrogen-Ammonia	EPA3512 Nitrogen-Kjeldahl Total	EPA3761 Sulfide	EPA6010B Dissolved Metals	EPA7199 Hexavalent Chromium	EPA7470A Dissolved Mercury	EPA8015 Gas	EPA8015M Diesel or Motor Oil	EPA8081A Organochlorine Pesticides	EPA8082 PCBs	EPA8141A Organophosphorus Cpd's and Pesticides	EPA8260B VOCs-8260	EPA8270C SVOCs-8270	EPA9010B Cyanide	FPD-GC Organotins	SM2520B Salinity	EPA 901.0 Radionuclides
IR02MW175A	E				Inaccessible.																					
IR02MW179A	E	0708L007	2/22/2007	1455				Q																		Q
IR02MW206A2	E				Inaccessible.			Q																		
IR02MW209A	E	0708L006	2/22/2007	1126				Q																		Q
IR02MW300A	E				Decommissioned.			Q																		Q
IR02MWB-1	E	0709W025	2/28/2007	1140				Q																		Q
IR02MWB-2	E				Obstructed.			Q																		Q
IR02MWB-3	E				Decommissioned.			Q																		Q
IR02MWB-5	E				Obstructed.			Q																		Q
IR02MWC5-W	E				Inaccessible.			Q																		Q
IR03MW218A2	E	0709L012	2/27/2007	0945				Q																		Q
IR03MW224A	E	0709G047	2/28/2007	1351				Q																		Q
IR03MW228B	E	0707W004	2/16/2007	1510																						Q
IR03MW342A	E	0708L005	2/22/2007	0950				Q																		
IR03MW369A	E				Previously contained immiscible phase LNAPL.			Q																		
IR03MW370A	E				Previously contained immiscible phase LNAPL.			Q																		
IR03MW371A	E				Previously contained immiscible phase LNAPL.			Q																		Q
IR03MW373B	E	0709G048	2/28/2007	1458				Q																		Q
IR04MW13A	E-2	0708G030	2/21/2007	0839				Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR04MW36A	E-2	0708G038	2/22/2007	1203				Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR04MW37A	E	0708L002	2/20/2007	1520																						Q
IR05MW85A	E	0709N003	2/28/2007	1410				Q																		Q
IR06MW32A	C	0707H009	2/14/2007	1328																						Q
IR06MW35A	C	0707G015	2/14/2007	1433																						Q
IR06MW40A	C	0708A022	2/20/2007	1412																						Q
IR06MW47F	C	0708A023	2/20/2007	1458																						Q
IR06MW50F	C				Decommissioned.			Q																		
IR06MW52F	C	0707G016	2/14/2007	1513																						Q
IR06MW53F	C	0707H010	2/14/2007	1432				Q																		Q
IR06MW54F	C	0707G019	2/15/2007	1008				Q																		Q
IR06MW55F	C	0707G017	2/15/2007	0910																						Q
IR06MW59A1	C	0708G028	2/20/2007	1357																						Q

Table 4-1. Summary of groundwater sampling information (January-March 2007).

Well ID	Parcel	Sample ID	Sample Date	Sample Time	Comments	EPA1601 TDS	EPA1602 TSS	EPA1664 Oil and Grease	EPA3000 Anions-Inorganics	EPA3501 Nitrogen-Ammonia	EPA3512 Nitrogen-Kjeldahl Total	EPA3761 Sulfide	EPA6010B Dissolved Metals	EPA7199 Hexavalent Chromium	EPA7470A Dissolved Mercury	EPA8015 Gas	EPA8015M Diesel or Motor Oil	EPA8081A Organochlorine Pesticides	EPA8082 PCBs	EPA8141A Organophosphorus Cpd's and Pesticides	EPA8260B VOCs-8260	EPA8270C SVOCs-8270	EPA9010B Cyanide	FPD-GC Organotins	SM2520B Salinity	EPA 901.0 Radionuclides
IR06MW59A2	C	0708G027	2/20/2007	1247																						
IR09MW35A	D	0707A006	2/15/2007	0915				Q																		
IR09MW36A	D	0707H004	2/13/2007	1415				Q																		
IR09MW37A	D	0709L009	2/26/2007	1215				Q																		
IR09MW38A	D	0707Z002	2/14/2007	1202				Q																		
IR09MW39A	D	0707Z001	2/14/2007	1043				Q																		
IR09MW45F	D	0709N001	2/28/2007	1042				Q																		
IR09MW51F	D	0707G005	2/13/2007	1034				Q																		
IR09MW54B	D	0707A001	2/14/2007	1040				Q																		
IR09MW61A	D	0707Z007	2/15/2007	1034			Q	Q																		Q
IR09MW62A	D	0707Z005	2/15/2007	0908			Q	Q																		Q
IR09MW63A	D	0707G004	2/13/2007	0931			Q	Q																		Q
IR09P040A	D	0709N002	2/28/2007	1200																						Q
IR09PPY1	D	0709W022	2/27/2007	1030				Q									Q	Q								Q
IR11MW25A	E				Damaged.														Q							Q
IR11MW27A	E	0709Z030	3/2/2007	1122																						Q
IR12MW13A	E	0709Z018	2/26/2007	1425																						Q
IR12MW14A	E	0709W030	3/2/2007	0950																						Q
IR12MW17A	E				Inaccessible.														Q	Q	Q					Q
IR12MW21A	E				Previously contained immiscible phase LNAPL.			Q								Q										Q
IR15MW06A	E	0708W007	2/19/2007	1407																						Q
IR15MW10F	E	0708W009	2/19/2007	1530																						Q
IR22MW16A	D	0707D006	2/13/2007	1155				Q								Q										Q
IR22MW20A	D	0707D005	2/13/2007	1006				Q								Q										
IR25MW16A	C	0709L018	3/2/2007	0950																Q						Q
IR25MW40A	C	0708G029	2/20/2007	1507																Q						Q
IR25MW41A	C				Inaccessible.																					Q
IR25MW52A	C				Decommissioned.														Q						Q	Q
IR25MW60A1	C				Inaccessible.		Q												Q						Q	Q
IR25MW60A2	C				Decommissioned.		Q											Q						Q	Q	Q
IR25MW61A1	B*	0709W032	3/2/2007	1422				Q																		Q
IR25MW61A2	B*	0709G054	3/2/2007	1202				Q																		Q
IR28MW122A	C	0707Z003	2/14/2007	1419																						Q
IR28MW125A	C	0708A019	2/20/2007	0913				Q								Q	Q									Q
IR28MW136A	C	0708A020	2/20/2007	1045				Q								Q										Q

Table 4-1. Summary of groundwater sampling information (January-March 2007).

Well ID	Parcel	Sample ID	Sample Date	Sample Time	Comments	EPA1601 TDS	EPA1602 TSS	EPA1664 Oil and Grease	EPA3000 Anions-Inorganics	EPA3501 Nitrogen-Ammonia	EPA3512 Nitrogen-Kjeldahl Total	EPA6010B Dissolved Metals	EPA7199 Hexavalent Chromium	EPA7470A Dissolved Mercury	EPA8015 Gas	EPA8015M Diesel or Motor Oil	EPA8081A Organochlorine Pesticides	EPA8082 PCBs	EPA8141A Organophosphorus Cpd's and Pesticides	EPA8260B VOCs-8260	EPA8270C SVOCs-8270	EPA9010B Cyanide	FPD-GC Organotins	SM2520B Salinity	EPA 901.0 Radionuclides
IR28MW140F	C	0707G002	2/12/2007	1134																					
IR28MW150A	C	0707D004	2/12/2007	1425																					
IR28MW151A	C	0709Z016	2/26/2007	0949		Q																			
IR28MW155A	C	0709Z017	2/26/2007	1110																					
IR28MW169A	C	0707H003	2/12/2007	1355																					
IR28MW171A	C	0707G003	2/12/2007	1358																					
IR28MW171B	C	0709G052	3/1/2007	1450		Q																		Q	
IR28MW172F	C	0707Z015	2/16/2007	1202																					
IR28MW173B	C	0709G042	2/26/2007	1415																					
IR28MW188F	C	0707D015	2/16/2007	1408																					
IR28MW189F	C	0707D014	2/16/2007	1120																					
IR28MW190F	C	0707Z011	2/15/2007	1528																					
IR28MW200A	C	0707H001	2/12/2007	1045																					
IR28MW201F	C	0708H034	2/22/2007	1423																					
IR28MW211F	C	0709Z024	2/28/2007	0922		Q																			
IR28MW216F	C	0707Z010	2/15/2007	1339																					
IR28MW217A	C	0708L001	2/20/2007	0940																					
IR28MW221A	C	0712W033	3/19/2007	1445		Q																		Q	
IR28MW221B	C	0707H006	2/14/2007	0910		Q																		Q	
IR28MW255F	C	0709L019	3/2/2007	1125																					
IR28MW268A	C	0709N004	2/28/2007	1530																					
IR28MW270A	C	0707G001	2/12/2007	1016																					
IR28MW272A	C	0712W037	3/21/2007	1525																					
IR28MW272F	C	0707D012	2/15/2007	1505		Q																		Q	
IR28MW287A	C	0707H015	2/16/2007	1043																				Q	
IR28MW294A	C	0708A017	2/19/2007	1502																				Q	
IR28MW298A	C	0707W002	2/16/2007	0956																				Q	
IR28MW299B	C	0708A027	2/21/2007	1450																					
IR28MW300F	C	0709H038	2/26/2007	1235																				Q	
IR28MW308A	C	0707A012	2/16/2007	1210																				Q	
IR28MW309B	C	0709G045	2/27/2007	1332																				Q	
IR28MW311A	C	0707Z012	2/16/2007	0859																				Q	
IR28MW312F	C	0712W034	3/20/2007	0942																				Q	
IR28MW315A	C	0707G013	2/14/2007	1212		Q																		Q	
IR28MW315B	C	0707G012	2/14/2007	1102		Q																		Q	
IR28MW315F	C	0707G011	2/14/2007	1018		Q																		Q	

Table 4-1. Summary of groundwater sampling information (January-March 2007).

Well ID	Parcel	Sample ID	Sample Date	Sample Time	Comments	EPA1601 TDS	EPA1602 TSS	EPA1664 Oil and Grease	EPA3000 Anions-Inorganics	EPA3501 Nitrogen-Ammonia	EPA3512 Nitrogen-Kjeldahl Total	EPA3761 Sulfide	EPA6010B Dissolved Metals	EPA7199 Hexavalent Chromium	EPA7470A Dissolved Mercury	EPA8015 Gas	EPA8015M Diesel or Motor Oil	EPA8081A Organochlorine Pesticides	EPA8082 PCBs	EPA8141A Organophosphorus Cpd's and Pesticides	EPA8260B VOCs-8260	EPA8270C SVOCs-8270	EPA9010B Cyanide	FPD-GC Organotins	SM2520B Salinity	EPA 901.0 Radionuclides
IR28MW350F	C	0707Z009	2/15/2007	1231																						
IR28MW352A	C	0708A030	2/22/2007	1418																						
IR28MW353A	C	0707D009	2/15/2007	1035																						
IR28MW353B	C	0707D010	2/15/2007	1155			Q																			
IR28MW355F	C	0709Z025	2/28/2007	1023																						
IR28MW394A	C	0709H043	3/1/2007	1451																						
IR28MW394B	C	0709N006	3/1/2007	1105																						
IR28MW395F	C	0707Z014	2/16/2007	1110																						
IR28MW396A	C	0707D001	2/12/2007	1126																						
IR28MW396B	C	0707D003	2/12/2007	1235																						
IR28MW397B	C	0707H016	2/16/2007	1142																						
IR28MW398A	C	0708G024	2/19/2007	1559																						
IR28MW398B	C	0708G023	2/19/2007	1414																						
IR28MW399B	C	0708A021	2/20/2007	1306																						
IR28MW406A	C	0707W001	2/15/2007	1535																						
IR28MW407A	C	0707Z013	2/16/2007	0947																						
IR29MW56F	C				Insufficient water volume for sampling.																					
IR29MW58F	C	0707A008	2/15/2007	1425																						
IR29MW59F	C	0707A007	2/15/2007	1103																						
IR29MW72F	C	0708W011	2/20/2007	1138				Q																		
IR29MW85F	C	0708H022	2/19/2007	1510				Q																		
IR30MW04F	C	0707A005	2/14/2007	1532																						
IR33MW61A	D				Damaged.			Q										Q	Q	Q	Q	Q	Q	Q		
IR36MW11A	E	0709H036	2/26/2007	1105																						
IR36MW120B	E	0708D019	2/19/2007	1445																						
IR36MW121A	E	0708D018	2/19/2007	1350																						
IR36MW122A	E	0709L013	2/27/2007	1133																						
IR36MW123B	E	0709L010	2/26/2007	1449																						
IR36MW125A	E				Insufficient water volume for sampling.																					
IR36MW126A	E	0709Z021	2/27/2007	1059																						
IR36MW127A	E	0709Z022	2/27/2007	1150																						
IR36MW128A	E	0708G035	2/21/2007	1521																						
IR36MW129B	E	0708G033	2/21/2007	1428																						
IR36MW12A	E	0709W023	2/27/2007	1315														Q	Q	Q						

Table 4-1. Summary of groundwater sampling information (January-March 2007).

Well ID	Parcel	Sample ID	Sample Date	Sample Time	Comments	EPA1601 TDS	EPA1602 TSS	EPA1664 Oil and Grease	EPA3000 Anions-Inorganics	EPA3501 Nitrogen-Ammonia	EPA3512 Nitrogen-Kjeldahl Total	EPA3761 Sulfide	EPA6010B Dissolved Metals	EPA7199 Hexavalent Chromium	EPA7470A Dissolved Mercury	EPA8015 Gas	EPA815M Diesel or Motor Oil	EPA8081A Organochlorine Pesticides	EPA8082 PCBs	EPA8141A Organophosphorus Cpds and Pesticides	EPA8260B VOCs-8260	EPA8270C SVOCs-8270	EPA9010B Cyanide	FPD-GC Organotins	SM2520B Salinity	EPA 901.0 Radionuclides
IR36MW16A	D	0709H039	2/26/2007	1422																						
IR36MW17A	E	0712D021	3/20/2007	1535																						
IR39MW21A	E				Previously contained immiscible phase LNAPL.																					
IR39MW23A	E	0709Z026	2/28/2007	1232																						
IR39MW33A	E				Inaccessible.		Q							Q												
IR39MW36A	E	0708G039	2/22/2007	1449																						
IR44MW08A	D	0707A004	2/14/2007	1412																						
IR56MW39A	E	0708H027	2/20/2007	1440																						
IR58MW25F	C	0708W010	2/20/2007	1000			Q							Q	Q		Q	Q								
IR58MW26A	C	0707A009	2/16/2007	0908																						
IR58MW31A	C	0707G008	2/13/2007	1337													Q	Q	Q	Q	Q	Q	Q	Q	Q	
IR58MW31F	C	0707G009	2/13/2007	1424																						
IR58MW32B	C	0707A010	2/16/2007	1014																						
IR58MW33B	C	0707G006	2/13/2007	1213																						
IR64MW05A	C	0709H044	3/2/2007	1335																					Q	
IR70MW04A	D	0707A002	2/14/2007	1250																						
IR70MW07A	D	0707D007	2/13/2007	1442																						
IR71MW03A	D	0707G010	2/14/2007	0833																						
IR71MW04A	D	0712D020	3/20/2007	1422			Q																		Q	
IR71MW12B	D	0707D008	2/14/2007	0856																						
IR74MW01A	E	0708H021	2/19/2007	1340																						
IR75MW05B	NNP	0709Z023	2/27/2007	1419					Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q		
IR76MW13A	NNP	0709Z019	2/27/2007	0928																						
PA28P04A	C	0709W031	3/2/2007	1143																						
PA36MW01A	E	0708H030	2/21/2007	1337														Q								
PA36MW07A	E	0709W024	2/27/2007	1439																						
PA36MW08A	E				Previously contained immiscible phase LNAPL.																					
PA50MW03A	C	0708A016	2/19/2007	1340																						
PA50MW07A	D	0707H005	2/13/2007	1530					Q					Q	Q	Q										
PA50MW12A	D	0712W036	3/21/2007	1157					Q					Q	Q											

**Notes:** The analyses to be performed are as outlined in SAP Tables 7B-7M

**Abbreviations/Acronyms:**

- PCB:** Polychlorinated biphenyls
- Q:** Quarterly sampling frequency
- SA:** Semiannual sampling frequency
- SVOC:** Semi-volatile organic compounds
- TDS:** Total dissolved solids
- TPH:** Total petroleum hydrocarbons
- TPH-E:** TPH as extractable hydrocarbons
- TPH-G:** TPH as gasoline
- TSS:** Total suspended solids
- VOC:** Volatile organic compounds

**Parcel:**

- B\*:** located in Parcel B, but reported in the Parcels C, D, E, and E-2 report
- NNP:** Non-Navy Property, reported by SAP-assigned parcel

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Table 4-2. Summary of quality control sample information (January-March 2007).

Well ID	Parcel	Sample ID	QC Type	Sample Date	Sample Time	EPA1601 TDS	EPA1602 TSS	EPA1664 Oil and Grease	EPA3000 Anions-Inorganics	EPA3501 Nitrogen-Ammonia	EPA3512 Nitrogen-Kjeldahl ITotal	EPA3761 Sulfide	EPA6010B Dissolved Metals	EPA 7199 Hexavalent Chromium	EPA7470A Dissolved Mercury	EPA8015 Gas	EPA8015M Diesel or Motor Oil	EPA8081A Organochlorine Pesticides	EPA8082 PCBs	EPA8141A Organophosphorus Cpd's and Pesticides	EPA8260B VOCs-8260	EPA8270C SVOCs-8270	EPA9010B Cyanide	FPD-GC Organotins	SM2520B Salinity
IR01MWLF2A	E-2	IR01EB717	EB	2/15/2007	1330	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
IR02MW179A	E	IR02EB744	EB	2/22/2007	1610	X							X		X								X		
IR02MW126A	E	IR02EB758	EB	2/28/2007	1553	X							X		X		X						X		
IR02MW149A	E	IR02EB761	EB	3/1/2007	1528	X							X		X		X						X		
IR03MW224A	E	IR03EB757	EB	2/28/2007	1420	X							X		X		X								
IR06MW59A2	C	IR06EB732	EB	2/20/2007	1307																		X		
IR09MW37A	D	IR09EB746	EB	2/26/2007	1252	X							X		X		X								
IR09PPY1	D	IR09EB750	EB	2/27/2007	1120	X							X		X		X						X		
IR09MW45F	D	IR09EB755	EB	2/28/2007	1120	X							X		X		X								
IR11MW27A	E	IR11EB765	EB	3/2/2007	1137																	X		X	
IR12MW13A	E	IR12EB749	EB	2/26/2007	1446																	X			
IR12MW14A	E	IR12EB768	EB	3/2/2007	1016																	X			
IR15MW10F	E	IR15EB729	EB	2/19/2007	1635																	X			
IR25MW61A2	B*	IR25EB767	EB	3/2/2007	1255	X																X	X	X	
IR28MW200A	C	IR28EB705	EB	2/12/2007	1110																	X			
IR28MW396B	C	IR28EB706	EB	2/12/2007	1310																	X			
IR28MW270A	C	IR28EB707	EB	2/12/2007	1036																	X			
IR28MW353A	C	IR28EB716	EB	2/15/2007	1105																	X			
IR28MW216F	C	IR28EB719	EB	2/15/2007	1354																	X			
IR28MW407	C	IR28EB721	EB	2/16/2007	1003																	X			
IR28MW189F	C	IR28EB722	EB	2/16/2007	1145																	X			
IR28MW287A	C	IR28EB723	EB	2/16/2007	1100																	X		X	
IR28MW298A	C	IR28EB724	EB	2/16/2007	1050																	X			
IR28MW398B	C	IR28EB728	EB	2/19/2007	1442																	X			
IR28MW217A	C	IR28EB731	EB	2/20/2007	1010																	X			
IR28MW399B	C	IR28EB734	EB	2/20/2007	1325																	X			
IR28MW299B	C	IR28EB737	EB	2/21/2007	1510																	X			
IR28MW352A	C	IR28EB741	EB	2/22/2007	1437																	X			
IR28MW201F	C	IR28EB743	EB	2/22/2007	1440																	X			
IR28MW300F	C	IR28EB745	EB	2/26/2007	1255																	X	X		
IR28MW173B	C	IR28EB748	EB	2/26/2007	1445																	X			
IR28MW309B	C	IR28EB754	EB	2/27/2007	1358																	X			
IR28MW355F	C	IR28EB756	EB	2/28/2007	1100																	X			
IR28MW394B	C	IR28EB760	EB	3/1/2007	1135																	X			
IR28MW171B	C	IR28EB762	EB	3/1/2007	1520	X																X	X	X	
IR28MW255F	C	IR28EB769	EB	3/2/2007	1145																	X			

Table 4-2. Summary of quality control sample information (January-March 2007).

Well ID	Parcel	Sample ID	QC Type	Sample Date	Sample Time	EPA1601 TDS	EPA1602 TSS	EPA1664 Oil and Grease	EPA3000 Anions-Inorganics	EPA3501 Nitrogen-Ammonia	EPA3512 Nitrogen-Kjeldahl ITotal	EPA3761 Sulfide	EPA6010B Dissolved Metals	EPA 7199 Hexavalent Chromium	EPA7470A Dissolved Mercury	EPA8015 Gas	EPA8015M Diesel or Motor Oil	EPA8081A Organochlorine Pesticides	EPA8082 PCBs	EPA8141A Organophosphorus Cpd and Pesticides	EPA8260B VOCs-8260	EPA8270C SVOCs-8270	EPA9010B Cyanide	FPD-GC Organotins	SM2520B Salinity	
IR28MW221A	C	IR28EB770	EB	3/19/2007	1525	X																			X	
IR28MW272A	C	IR28EB772	EB	3/21/2007	1540																					
IR29MW59F	C	IR29EB715	EB	2/15/2007	1123																				X	
IR29MW72F	C	IR29EB730	EB	2/20/2007	1203		X																			
IR36MW121A	E	IR36EB727	EB	2/19/2007	1410																					
IR26MW129B	E	IR36EB735	EB	2/21/2007	1448																					
IR36MW122A	E	IR36EB752	EB	2/27/2007	1200																					
IR36MW17A	E	IR36EB771	EB	3/20/2007	1555																					
IR39MW36A	E	IR39EB742	EB	2/22/2007	1515																					
IR56MW39A	E	IR56EB733	EB	2/20/2007	1500													X	X							
IR58MW33B	C	IR58EB708	EB	2/13/2007	1241																					
IR58MW26A	C	IR58EB720	EB	2/16/2007	0928																					
IR64MW05A	C	IR64EB766	EB	3/2/2007	1400																				X	
IR70MW07A	D	IR70EB709	EB	2/13/2007	1510																					
IR71MW03A	D	IR71EB711	EB	2/14/2007	0915																					
IR71MW12B	D	IR71EB712	EB	2/14/2007	0930																					
IR71MW04A	D	IR71EB714	EB	2/14/2007	1541	X																				
IR74MW01A	E	IR74EB726	EB	2/19/2007	1400																					
IR76MW13A	NNP	IR76EB751	EB	2/27/2007	0945																					
PA36MW01A	E	PA36EB739	EB	2/21/2007	1405														X							
PA50MW07A	D	PA50EB710	EB	2/13/2007	1555																					
PA50MW03A	C	PA50EB725	EB	2/19/2007	1410																					
IR01MW09B	E-2	0708G037	FD	2/22/2007	1005		X	X	X	X	X	X	X				X	X	X	X	X	X	X	X		
IR06MW53F	C	0707H011	FD	2/14/2007	1437		X							X												X
IR06MW55F	C	0707G018	FD	2/15/2007	0920																					X
IR09MW61A	D	0707Z008	FD	2/15/2007	1044		X							X	X											X
IR09MW62A	D	0707Z006	FD	2/15/2007	0913		X							X	X											X
IR15MW06A	E	0708W008	FD	2/19/2007	1413																					X
IR28MW221B	C	0707H007	FD	2/14/2007	0915																					X
IR28MW272F	C	0707D013	FD	2/15/2007	1510																					X
IR28MW294A	C	0708A018	FD	2/19/2007	1505																					X
IR28MW315A	C	0707G014	FD	2/14/2007	1220																					X
IR28MW353B	C	0707D011	FD	2/15/2007	1200																					X
IR28MW396A	C	0707D002	FD	2/12/2007	1130																					X
IR36MW11A	E	0709H037	FD	2/26/2007	1110																					X
IR36MW122A	E	0709L014	FD	2/27/2007	1138																					X
IR36MW123B	E	0709L011	FD	2/26/2007	1452																					X

**Table 4-2. Summary of quality control sample information (January-March 2007).**

Well ID	Parcel	Sample ID	QC Type	Sample Date	Sample Time	EPA1601 TDS	EPA1602 TSS	EPA1664 Oil and Grease	EPA3000 Anions-Inorganics	EPA3501 Nitrogen-Ammonia	EPA3512 Nitrogen-Kjeldahl /Total	EPA3761 Sulfide	EPA6010B Dissolved Metals	EPA 7199 Hexavalent Chromium	EPA7470A Dissolved Mercury	EPA8015 Gas	EPA8015M Diesel or Motor Oil	EPA8081A Organochlorine Pesticides	EPA8082 PCBs	EPA8141A Organophosphorus Cpds and Pesticides	EPA8260B VOCs-8260	EPA8270C SVOCs-8270	EPA9010B Cyanide	FPD-GC Organotins	SM2520B Salinity
IR36MW129B	E	0708G034	FD	2/21/2007	1435																				
IR39MW36A	E	0708G040	FD	2/22/2007	1455																				
IR58MW32B	C	0707A011	FD	2/16/2007	1016																				
IR58MW33B	C	0707G007	FD	2/13/2007	1223																				
IR70MW04A	D	0707A003	FD	2/14/2007	1252																				
IR76MW13A	NNP	0709Z020	FD	2/27/2007	0930																				
PA36MW01A	E	0708H031	FD	2/21/2007	1342																				
TB	CDE	IR01TB204	TB	2/15/2007	1540												X								
TB	CDE	IR01TB210	TB	2/20/2007	1416											X									
TB	CDE	IR01TB214	TB	2/22/2007	1525											X									
TB	CDE	IR01TB218	TB	2/27/2007	1438											X									
TB	E-2	IR01TBA002	TB	2/22/2007	1530											X									
TB	E-2	IR01TBG002	TB	2/22/2007	1530											X									
TB	E-2	IR01TBG003	TB	2/26/2007	1500											X									
TB	E-2	IR01TBG006	TB	3/1/2007	1530											X									
TB	E-2	IR01TBG007	TB	3/2/2007	1518																				
TB	E	IR02TBL002	TB	2/22/2007	1530																				
TB	E	IR02TBL005	TB	2/28/2007	1400																				
TB	E	IR02TBW005	TB	2/28/2007	1600											X									
TB	E	IR03TB223	TB	2/27/2007	1530											X									
TB	E	IR03TBG005	TB	2/28/2007	1600											X									
TB	E	IR04TBG001	TB	2/21/2007	1530											X									
TB	CDE	IR09TB202	TB	2/13/2007	1430																				
TB	D	IR09TBN001	TB	2/28/2007	1600																				
TB	CDE	IR10TB226	TB	3/1/2007	1545																				
TB	E	IR11TBZ005	TB	3/2/2007	1515																				
TB	E	IR12TBW007	TB	3/2/2007	1514																				
TB	C	IR25TB212	TB	2/21/2007	1432											X									
TB	C	IR25TBL007	TB	3/2/2007	1520																				
TB	C	IR25TBW001	TB	2/21/2007	1600											X									
TB	C	IR25TBW006	TB	3/1/2007	1530											X									
TB	CDE	IR28TB208	TB	2/19/2007	1444											X									
TB	C	IR28TB219	TB	2/27/2007	1300											X									
TB	C	IR28TBH002	TB	2/22/2007	1530											X									
TB	C	IR28TBH005	TB	3/1/2007	1510																				
TB	C	IR28TBW008	TB	3/19/2007	1600																				
TB	C	IR28TBW009	TB	3/21/2007	1615											X									

Table 4-2. Summary of quality control sample information (January-March 2007).

Well ID	Parcel	Sample ID	QC Type	Sample Date	Sample Time	EPA1601 TDS	EPA1602 TSS	EPA1664 Oil and Grease	EPA3000 Anions-Inorganics	EPA3501 Nitrogen-Ammonia	EPA3512 Nitrogen-Kjeldahl ITotal	EPA3761 Sulfide	EPA6010B Dissolved Metals	EPA 7199 Hexavalent Chromium	EPA7470A Dissolved Mercury	EPA8015 Gas	EPA8015M Diesel or Motor Oil	EPA8081A Organochlorine Pesticides	EPA8082 PCBs	EPA8141A Organophosphorus Cpds and Pesticides	EPA8260B VOCs-8260	EPA8270C SVOCs-8270	EPA9010B Cyanide	FPD-GC Organotins	SM2520B Salinity
TB	C	IR28TBZ001	TB	2/26/2007	1500											X									
TB	C	IR28TBZ003	TB	2/28/2007	1400																				
TB	CDE	IR29TB206	TB	2/16/2007	1416																				
TB	CDE	IR36TB217	TB	2/26/2007	1511																				
TB	E	IR36TB221	TB	2/27/2007	1445																				
TB	CDE	IR36TB224	TB	2/28/2007	1530																				
TB	E	IR36TBL003	TB	2/26/2007	1500																				
TB	CDE	IR56TB213	TB	2/21/2007	1436																				
TB	CDE	IR58TB203	TB	2/14/2007	1345																				
TB	C	IR64TBH006	TB	3/2/2007	1511																				
TB	D	IR71TBD001	TB	3/20/2007	1559																				
TB	NNP	IR75TB222	TB	2/27/2007	1430											X									

Notes:

<sup>a</sup> VOCs were run by CLP method

Abbreviations/Acronyms:

EB: Equipment rinsate sample

FD: Field duplicate sample

PCB: Polychlorinated biphenyl

SVOC: Semi-volatile organic compound

TB: Trip blank

TDS: Total dissolved solids

TSS: Total suspended solids

VOC: Volatile organic compound

Parcel:

B\*: located in Parcel B, but reported in the Parcels C, D, E, and E-2 report

NNP: Non-Navy Property, reported by SAP-assigned parcel

Table 4-3. Concentrations of trichloroethene in groundwater.

Well ID	Parcel	Apr-Jun 2006 (ug/L)	Jul-Sep 2006 (ug/L)	Oct-Dec 2006 (ug/L)	Jan-Mar 2007 (ug/L)	Most Recent (ug/L)
IR01MW02B	NNP	0.5	U	0.5	U	0.5
IR01MW03A	NNP	0.5	U	0.5	U	0.5
IR01MW05A	NNP	0.18	J	0.5	U	0.5
IR01MW09B	E-2	0.5	U	0.5	U	0.5
IR01MW10A	E-2	0.5	U	0.5	U	0.5
IR01MW26B	E-2	0.5	U	0.5	UJ	0.5
IR01MW31A	E-2	0.5	U	0.5	U	0.5
IR01MW366A	E-2	0.5	U	0.5	U	0.5
IR01MW366B	E-2	0.5	U	0.5	U	0.5
IR01MW38A	E-2	0.5	U	0.5	U	0.5
IR01MW403A	NNP	0.5	U	0.5	U	0.5
IR01MW403B	E-2	0.5	U	0.5	U	0.5
IR01MW42A	E-2	0.5	U	0.5	U	0.5
IR01MW48A	E-2	0.5	U	0.5	U	0.5
IR01MW53B	E-2	0.5	U	0.5	U	0.5
IR01MW62A	E-2	0.5	U	0.5	U	0.5
IR01MW63A	E-2	0.5	U	0.5	U	0.5
IR01MWI-7	E-2	0.5	U	0.5	U	0.5
IR01MWI-8	E-2	0.5	U	0.5	U	0.5
IR01MWLF1A	E-2	0.5	U	0.5	U	0.5
IR01MWLF2A	E-2	0.5	U	0.5	U	0.5
IR01MWLF4B	E-2	0.5	U	0.5	U	0.5
IR02MW126A	E	0.21	J	0.5	U	0.5
IR02MW147A	E	0.5	U	0.5	U	0.5
IR02MW209A	E	0.5	U	0.5	U	0.5
IR03MW218A2	E	0.5	U	0.5	U	0.5
IR03MW224A	E	0.5	U	0.5	U	0.5
IR03MW228B	E	0.5	U	0.5	U	0.5
IR03MW342A	E	0.23	J	0.46	J	0.61
IR03MW373B	E	0.67		0.5	U	0.5
IR04MW13A	E-2	46		52		52

Table 4-3. Concentrations of trichloroethene in groundwater.

Well ID	Parcel	Apr-Jun 2006 (ug/L)	Jul-Sep 2006 (ug/L)	Oct-Dec 2006 (ug/L)	Jan-Mar 2007 (ug/L)	Most Recent (ug/L)
IR04MW36A	E-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR04MW37A	E	2.9	3.0	4.0	7.8	7.8
IR05MW85A	E	0.16 J	0.5 U	0.5 U	0.5 U	0.5 U
IR06MW32A	C	0.5 U	1.9 J	0.68	11	11
IR06MW35A	C	5.9	7.9	4.1	3.3	3.3
IR06MW40A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR06MW42A	C*	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR06MW45A	C*	0.5 U	decommissioned			0.5 U
IR06MW47F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR06MW52F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR06MW53F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR06MW54F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR06MW55F	C	0.70	0.52	0.40 J	0.52	0.52
IR06MW59A1	C	8.2	13	1100	430	430
IR06MW59A2	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR07MW19A	B	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR07MW20A1	B	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR07MW21A1	B	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR07MW23A	B		0.36 J		0.5 U	0.5 U
IR07MW24A	B	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR07MW25A	B	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR07MW26A	B	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR07MW27A	B		0.5 U		0.5 U	0.5 U
IR07MW28A	NNP	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR07MWS-2	B	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR07MWS-4	B	0.5 U	0.21 J	0.5 U	0.5 U	0.5 U
IR09MW51F	D	14	40	26	25 J	25 J
IR09MW61A	D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR09MW62A	D	0.5 U	0.5 U	0.21 J	0.5 U	0.5 U
IR09MW63A	D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR10MW12A	B	0.5 U	decommissioned			0.5 U

Table 4-3. Concentrations of trichloroethene in groundwater.

Well ID	Parcel	Apr-Jun 2006 (ug/L)	Jul-Sep 2006 (ug/L)	Oct-Dec 2006 (ug/L)	Jan-Mar 2007 (ug/L)	Most Recent (ug/L)
IR10MW13A1	B	6.4	6.2 J	4.5	4.8	4.8
IR10MW14A	B	0.5 U	0.5 U	0.32 J	0.5 U	0.5 U
IR10MW28A	B	7.4				7.4
IR10MW31A1	B	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR10MW33A	B	0.87 J	0.41 J	0.24 J		0.24 J
IR10MW59A	B	4.0 J	7.0	11	6.3	6.3
IR10MW61A	B	0.27 J	1.1	0.5 U	2.2	2.2
IR10MW62A	B	1.9	1.7	1.7	2.2	2.2
IR10MW71A	B	27	67	31	120	120
IR10MW76A	B	0.44 J	0.54	0.23 J	0.51 J	0.51 J
IR10MW79A	B	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR10MW80A	B	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR11MW27A	E	0.5 U	0.5 U		0.5 U	0.5 U
IR12MW13A	E	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR12MW14A	E	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR15MW06A	E	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR15MW10F	E	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR18MW21A	B	0.5 U	0.5 U	0.17 J	0.5 U	0.5 U
IR25MW16A	C	260 J	400 J	200 J	200	200
IR25MW17A	C*	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR25MW37A	C*	0.5 U	0.5 U		0.5 U	0.5 U
IR25MW40A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR25MW41A	C	0.5 U	decommissioned			0.5 U
IR25MW52A	C	0.93	decommissioned			0.93
IR25MW60A1	C	0.28 J		0.17 J		0.17 J
IR25MW60A2	C	0.34 J	decommissioned			0.34 J
IR25MW61A1	B*	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U
IR25MW61A2	B*	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR26MW41A	B	0.5 U	0.20 J	0.5 U	0.5 U	0.5 U
IR28MW122A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW125A	C	1.2 J	1.3	1.4	1.0	1.0

Table 4-3. Concentrations of trichloroethene in groundwater.

Well ID	Parcel	Apr-Jun 2006 (ug/L)	Jul-Sep 2006 (ug/L)	Oct-Dec 2006 (ug/L)	Jan-Mar 2007 (ug/L)	Most Recent (ug/L)
IR28MW136A	C	11	15	11	8.9	8.9
IR28MW140F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW150A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW151A	C	65 J	3.3 J	25	400	400
IR28MW155A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW169A	C	0.5 U	0.18 J	0.5 U	0.5 U	0.5 U
IR28MW171A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW171B	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW172F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW173B	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW188F	C	0.40 J	0.75	0.34 J	0.26 J	0.26 J
IR28MW189F	C	3.7	8.4	5.3	4.9	4.9
IR28MW190F	C	3.5	3.7	4.8	4.5	4.5
IR28MW200A	C	26	9.6	0.23 J	0.16 J	0.16 J
IR28MW201F	C	0.5 U	0.5 U	0.28 J	0.5 U	0.5 U
IR28MW211F	C	2.7	8.8	8.7	18	18
IR28MW216F	C	1.9	2.3	2.7	2.2	2.2
IR28MW217A	C	2.4 U	3.2	2.8	2.0 J	2.0 J
IR28MW221A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW221B	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW255F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW268A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW270A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW272A	C	5.7	1.3	0.5 U	0.5 U	0.5 U
IR28MW272F	C	23	24	23	22	22
IR28MW287A	C	0.32 J	0.37 J	0.32 J	0.27 J	0.27 J
IR28MW294A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW298A	C	5.8	5.9	3.7	6.3	6.3
IR28MW299B	C	0.47 J	0.69	0.53	0.65 J	0.65 J
IR28MW300F	C	11	14	11	11 J	11 J
IR28MW308A	C	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U

Table 4-3. Concentrations of trichloroethene in groundwater.

Well ID	Parcel	Apr-Jun 2006 (ug/L)	Jul-Sep 2006 (ug/L)	Oct-Dec 2006 (ug/L)	Jan-Mar 2007 (ug/L)	Most Recent (ug/L)
IR28MW309B	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW311A	C	2.0	0.69	2.6	2.1	2.1
IR28MW312F	C	13	30	20	6.5	6.5
IR28MW315A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW315B	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW315F	C	0.68	0.67	0.63	0.59	0.59
IR28MW350F	C	19	21	30	22	22
IR28MW352A	C	1.8	1.5	1.2	1.2 J	1.2 J
IR28MW353A	C			0.5 U	0.5 U	0.5 U
IR28MW353B	C			0.5 U	0.5 U	0.5 U
IR28MW355F	C	17	21	18	16	16
IR28MW394A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW394B	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW395F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW396A	C	0.23 J	0.18 J	0.22 J	0.23 J	0.23 J
IR28MW396B	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW397B	C	3.0 J	2.0	2.4	1.4	1.4
IR28MW398A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW398B	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW399B	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW406A	C	210	270 J	98	93	93
IR28MW407A	C	0.42 J	0.42 J	0.64	0.95	0.95
IR29MW56F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR29MW58F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR29MW59F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR29MW85F	C	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U
IR30MW04F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR33MW61A	D	0.5 U	0.5 U	0.5 U		0.5 U
IR36MW11A	E	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR36MW120B	E	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR36MW121A	E	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 4-3. Concentrations of trichloroethene in groundwater.

Well ID	Parcel	Apr-Jun 2006 (ug/L)		Jul-Sep 2006 (ug/L)		Oct-Dec 2006 (ug/L)		Jan-Mar 2007 (ug/L)		Most Recent (ug/L)	
IR36MW122A	E	0.5	U	0.21	J	0.5	U	0.5	U	0.5	U
IR36MW123B	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR36MW125A	E	4800								4800	
IR36MW126A	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR36MW127A	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR36MW128A	E	1.0		0.82		0.72		0.58		0.58	
IR36MW129B	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR36MW12A	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR36MW16A	D	0.20	J	0.5	U	0.5	U	0.5	U	0.5	U
IR39MW36A	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR44MW08A	D	0.27	J	0.28	J	0.5	U	0.19	J	0.19	J
IR46MW37A	B	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR56MW39A	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR58MW25F	C	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR58MW26A	C	0.41	J	0.5	U	0.5	U	0.5	U	0.5	U
IR58MW31A	C	0.35	J	0.51		0.33	J	0.26	J	0.26	J
IR58MW31F	C	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR58MW32B	C	7.6		6.5		4.6		5.5		5.5	
IR58MW33B	C	2.3		2.9		2.3		2.4		2.4	
IR61MW05A	B			0.5	U			0.5	U	0.5	U
IR64MW05A	C	0.29	J	0.31	J	0.22	J	0.5	U	0.5	U
IR70MW04A	D	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR70MW07A	D	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U
IR71MW03A	D	8.0		8.8		3.4		3.4		3.4	
IR71MW04A	D	0.5	U	0.19	J	0.5	U	0.5	U	0.5	U
IR71MW12B	D	0.5	U	0.21	J	0.5	U	0.5	U	0.5	U
IR74MW01A	E	1.5		4.5		2.2		2.5		2.5	
IR75MW05B	NNP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR76MW13A	NNP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
PA28P04A	C	0.29	J	0.56				0.22	J	0.22	J
PA36MW01A	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

Table 4-3. Concentrations of trichloroethene in groundwater.

Well ID	Parcel	Apr-Jun 2006 (ug/L)		Jul-Sep 2006 (ug/L)		Oct-Dec 2006 (ug/L)		Jan-Mar 2007 (ug/L)		Most Recent (ug/L)	
PA36MW07A	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
PA50MW01A	B	0.5	U	0.5	U					0.5	U
PA50MW03A	C	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
PA50MW07A	D	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
UT03MW11A	B			0.5	U			0.5	U	0.5	U

Notes:

Data Qualifiers:

D: Dilution

J : Estimated value

U : Not detected at a concentration above the reporting limit shown

Parcel:

B\*: located in Parcel B, but reported in the Parcels C, D and E report

C\*: located in Parcel C, but included in the RAMP and reported in the Parcel B report

NNP: Non-Navy Property, reported by SAP assigned parcel

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Table 4-4. Concentrations of cis-1,2-dichloroethene in groundwater.

Well ID	Parcel	Apr-Jun 2006 (ug/L)	Jul-Sep 2006 (ug/L)	Oct-Dec 2006 (ug/L)	Jan-Mar 2007 (ug/L)	Most Recent (ug/L)
IR01MW02B	NNP	0.5	U	0.5	U	0.5
IR01MW03A	NNP	0.5	U	0.5	U	0.5
IR01MW05A	NNP	0.60		0.32	J	0.5
IR01MW09B	E-2	0.5	U	0.5	U	0.5
IR01MW10A	E-2	0.5	U	0.5	U	0.5
IR01MW26B	E-2	0.5	U	0.5	U	0.5
IR01MW31A	E-2	0.5	U	0.5	U	0.5
IR01MW366A	E-2	0.5	U	0.5	U	0.5
IR01MW366B	E-2	0.5	U	0.5	U	0.5
IR01MW38A	E-2	0.5	U	0.5	U	0.5
IR01MW403A	NNP	0.5	U	0.5	U	0.5
IR01MW403B	E-2	0.5	U	0.5	U	0.5
IR01MW42A	E-2	0.5	U	0.5	U	0.5
IR01MW48A	E-2	0.5	U	0.5	U	0.18
IR01MW53B	E-2	0.5	U	0.5	U	0.5
IR01MW62A	E-2	0.5	U	0.5	U	0.5
IR01MW63A	E-2	0.5	U	0.5	U	0.5
IR01MWI-7	E-2	0.5	U	0.5	U	0.5
IR01MWI-8	E-2	0.5	U	0.5	U	0.5
IR01MWF1A	E-2	0.5	U	0.5	U	0.5
IR01MWF2A	E-2	0.5	U	0.5	U	0.5
IR01MWF4B	E-2	0.5	U	0.5	U	0.5
IR02MW126A	E	0.49	J	0.66		0.36
IR02MW147A	E	0.5	U	0.5	U	0.5
IR02MW209A	E	0.5	U	0.5	U	0.5
IR03MW218A2	E	0.68		0.94		1.4
IR03MW224A	E	0.5	U	0.5	U	0.5
IR03MW228B	E	0.5	U	0.5	U	0.5
IR03MW342A	E	0.5	U	0.38	J	0.5
IR03MW373B	E	0.5	U	0.5	U	0.5

Table 4-4. Concentrations of cis-1,2-dichloroethene in groundwater.

Well ID	Parcel	Apr-Jun 2006 (ug/L)	Jul-Sep 2006 (ug/L)	Oct-Dec 2006 (ug/L)	Jan-Mar 2007 (ug/L)	Most Recent (ug/L)
IR04MW13A	E-2	40	36	38	39	39
IR04MW36A	E-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR04MW37A	E	0.5 U	0.5 U	0.30 J	0.5 U	0.5 U
IR05MW85A	E	0.45 J	0.46 J	0.5 U	0.43 J	0.43 J
IR06MW32A	C	0.21 J	0.72 J	0.55	1.5	1.5
IR06MW35A	C	14	15	6.5	7.3	7.3
IR06MW40A	C	0.5 U	0.5 U	0.48 J	3.4	3.4
IR06MW42A	C*	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR06MW45A	C*	0.5 U	decommissioned			0.5 U
IR06MW47F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR06MW52F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR06MW53F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR06MW54F	C	0.98 J	0.5 U	0.5 U	0.5 U	0.5 U
IR06MW55F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR06MW59A1	C	9.9	16	17	66 J	66 J
IR06MW59A2	C	0.37 J	0.36 J	0.18 J	0.5 U	0.5 U
IR07MW19A	B	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR07MW20A1	B	0.51 J	0.5 U	0.5 U	0.5 U	0.5 U
IR07MW21A1	B	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR07MW23A	B		0.79		0.48 J	0.48 J
IR07MW24A	B	0.5 U	0.29 J	0.5 U	0.5 U	0.5 U
IR07MW25A	B	0.19 J	0.5 U	0.5 U	0.5 U	0.5 U
IR07MW26A	B	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR07MW27A	B		0.5 U		0.5 U	0.5 U
IR07MW28A	NNP	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR07MWS-2	B	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR07MWS-4	B	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR09MW51F	D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR09MW61A	D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR09MW62A	D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 4-4. Concentrations of cis-1,2-dichloroethene in groundwater.

Well ID	Parcel	Apr-Jun 2006 (ug/L)		Jul-Sep 2006 (ug/L)		Oct-Dec 2006 (ug/L)		Jan-Mar 2007 (ug/L)		Most Recent (ug/L)	
IR09MW63A	D	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR10MW12A	B	0.5	U	decommissioned						0.5	U
IR10MW13A1	B	14		16	J	12		8.5		8.5	
IR10MW14A	B	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR10MW28A	B	0.91								0.91	
IR10MW31A1	B	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR10MW33A	B	7.1	J	12		20				20	
IR10MW59A	B	65	J	73		46		140	J	140	J
IR10MW61A	B	78		45		0.5	U	84		84	
IR10MW62A	B	1.0		1.2		1.7		2.0		2.0	
IR10MW71A	B	43		94		12		49		49	
IR10MW76A	B	0.26	J	0.43	J	0.28	J	0.32	J	0.32	J
IR10MW79A	B	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR10MW80A	B	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR11MW27A	E	0.5	U	0.5	U			0.5	U	0.5	U
IR12MW13A	E	0.69		0.53		0.5	U	0.62		0.62	
IR12MW14A	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR15MW06A	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR15MW10F	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR18MW21A	B	0.5	U	0.5	U	0.25	J	0.5	U	0.5	U
IR25MW16A	C	120	J	130	J	79	J	96		96	
IR25MW17A	C*	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR25MW37A	C*	0.5	UJ	0.5	U			0.5	U	0.5	U
IR25MW40A	C	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR25MW41A	C	0.5	U	decommissioned						0.5	U
IR25MW52A	C	2.6		decommissioned						2.6	
IR25MW60A1	C	0.56				0.31	J			0.31	J
IR25MW60A2	C	0.42	J	decommissioned						0.42	J
IR25MW61A1	B*	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U
IR25MW61A2	B*	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

Table 4-4. Concentrations of cis-1,2-dichloroethene in groundwater.

Well ID	Parcel	Apr-Jun 2006 (ug/L)	Jul-Sep 2006 (ug/L)	Oct-Dec 2006 (ug/L)	Jan-Mar 2007 (ug/L)	Most Recent (ug/L)
IR26MW41A	B	0.24	J	0.24	J	0.5 U
IR28MW122A	C	0.5	U	0.5	U	0.5 U
IR28MW125A	C	0.5	U	0.5	U	0.5 U
IR28MW136A	C	190		180		95
IR28MW140F	C	0.5	U	0.5	U	0.5 U
IR28MW150A	C	0.5	U	0.5	U	0.5 U
IR28MW151A	C	510		290		130
IR28MW155A	C	0.5	U	0.25	J	0.5 U
IR28MW169A	C	0.16	J	0.37	J	0.48 J
IR28MW171A	C	0.5	U	0.5	U	0.5 U
IR28MW171B	C	0.5	U	0.5	U	0.5 U
IR28MW172F	C	0.5	U	0.5	U	0.5 U
IR28MW173B	C	0.5	U	0.5	U	0.5 U
IR28MW188F	C	0.5	U	0.5	U	0.5 U
IR28MW189F	C	0.5	U	0.5	U	0.5 U
IR28MW190F	C	0.5	U	0.5	U	0.5 U
IR28MW200A	C	6.1		1.8		0.5 U
IR28MW201F	C	0.5	U	0.5	U	0.2 J
IR28MW211F	C	110		74		0.5 U
IR28MW216F	C	6.0		6.2		0.5 U
IR28MW217A	C	0.84		1.2		0.78
IR28MW221A	C	0.5	U	0.20	J	0.5 U
IR28MW221B	C	0.5	U	0.5	U	0.5 U
IR28MW255F	C	0.5	U	0.5	U	0.5 U
IR28MW268A	C	0.16	J	0.5	U	0.5 U
IR28MW270A	C	0.5	U	0.5	U	0.5 U
IR28MW272A	C	0.20	J	0.5	U	0.5 U
IR28MW272F	C	5.4		5.2		4.1
IR28MW287A	C	0.37	J	0.63		0.23 J
IR28MW294A	C	0.5	U	0.5	U	0.23 J

Table 4-4. Concentrations of cis-1,2-dichloroethene in groundwater.

Well ID	Parcel	Apr-Jun 2006 (ug/L)	Jul-Sep 2006 (ug/L)	Oct-Dec 2006 (ug/L)	Jan-Mar 2007 (ug/L)	Most Recent (ug/L)
IR28MW298A	C	0.75	1.0	0.71	0.82	0.82
IR28MW299B	C	0.5	U	0.5	U	0.5
IR28MW300F	C	1.0	1.1	1.0	1.1	J
IR28MW308A	C	0.5	U	0.5	UJ	0.5
IR28MW309B	C	0.5	U	0.5	U	0.5
IR28MW311A	C	7.0	1.7	2.8	0.63	0.63
IR28MW312F	C	1.1	1.8	1.4	0.31	J
IR28MW315A	C	0.5	U	0.5	U	0.5
IR28MW315B	C	0.5	U	0.5	U	0.5
IR28MW315F	C	0.5	U	0.5	U	0.5
IR28MW350F	C	2.8	3.4	3.5	2.6	2.6
IR28MW352A	C	1.7	1.6	2.3	2.0	J
IR28MW353A	C			0.5	U	0.5
IR28MW353B	C			0.5	U	0.5
IR28MW355F	C	0.5	U	0.5	U	0.5
IR28MW394A	C	0.5	U	0.5	U	0.5
IR28MW394B	C	0.5	U	0.5	U	0.5
IR28MW395F	C	0.5	U	0.5	U	0.5
IR28MW396A	C	0.5	U	0.19	J	0.21
IR28MW396B	C	0.5	U	0.5	U	0.5
IR28MW397B	C	0.24	J	0.5	U	0.5
IR28MW398A	C	0.5	U	0.5	U	0.5
IR28MW398B	C	0.5	U	0.5	U	0.5
IR28MW399B	C	0.5	U	0.5	U	0.5
IR28MW406A	C	29	34	18	15	15
IR28MW407A	C	15	0.42	J	0.75	24
IR29MW56F	C	0.5	U	0.5	U	0.5
IR29MW58F	C	0.5	U	0.5	U	0.5
IR29MW59F	C	0.5	U	0.5	U	0.5
IR29MW85F	C	0.5	U	0.5	U	0.5

Table 4-4. Concentrations of cis-1,2-dichloroethene in groundwater.

Well ID	Parcel	Apr-Jun 2006 (ug/L)	Jul-Sep 2006 (ug/L)	Oct-Dec 2006 (ug/L)	Jan-Mar 2007 (ug/L)	Most Recent (ug/L)
IR30MW04F	C	0.5	U	0.5	U	0.5
IR33MW61A	D	0.5	U	0.5	U	0.5
IR36MW11A	E	0.5	U	0.5	U	0.5
IR36MW120B	E	0.5	U	0.5	U	0.5
IR36MW121A	E	0.5	U	0.5	U	0.5
IR36MW122A	E	0.5	U	0.5	U	0.5
IR36MW123B	E	0.5	U	0.5	U	0.5
IR36MW125A	E	1000				1000
IR36MW126A	E	0.5	U	0.5	U	0.5
IR36MW127A	E	0.5	U	0.5	U	0.5
IR36MW128A	E	0.5	U	0.5	U	0.5
IR36MW129B	E	0.5	U	0.5	U	0.5
IR36MW12A	E	0.5	U	0.5	U	0.5
IR36MW16A	D	0.5	U	0.5	U	0.5
IR39MW36A	E	0.5	UJ	0.5	U	0.5
IR44MW08A	D	0.5	U	0.5	U	0.5
IR46MW37A	B	0.5	U	0.5	U	0.5
IR56MW39A	E	0.5	U	0.5	U	0.5
IR58MW25F	C	0.5	U	0.5	U	0.5
IR58MW26A	C	0.62	0.17	J	0.26	J
IR58MW31A	C	3.4		4.6		4.3
IR58MW31F	C	0.5	U	0.5	U	0.5
IR58MW32B	C	16		13		6.1
IR58MW33B	C	5.5		21		68
IR61MW05A	B		0.5	U		0.5
IR64MW05A	C	0.5	U	0.26	J	0.5
IR70MW04A	D	0.5	U	0.5	U	0.5
IR70MW07A	D	0.5	U	0.5	U	0.5
IR71MW03A	D	1.9		1.8		0.73
IR71MW04A	D	0.5	U	0.5	U	0.75
						0.5
						U

Table 4-4. Concentrations of cis-1,2-dichloroethene in groundwater.

Well ID	Parcel	Apr-Jun 2006 (ug/L)		Jul-Sep 2006 (ug/L)		Oct-Dec 2006 (ug/L)		Jan-Mar 2007 (ug/L)		Most Recent (ug/L)	
IR71MW12B	D	0.5	U	2.7	J	0.5	U	0.5	U	0.5	U
IR74MW01A	E	0.5	U	0.18	J	0.5	U	0.5	U	0.5	U
IR75MW05B	NNP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR76MW13A	NNP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
PA28P04A	C	0.5	U	0.25	J			0.5	U	0.5	U
PA36MW01A	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
PA36MW07A	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
PA50MW01A	B	0.29	J	0.31	J					0.31	J
PA50MW03A	C	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
PA50MW07A	D	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
UT03MW11A	B			0.5	U			0.5	U	0.5	U

Notes:

Data Qualifiers:

D: Dilution

J : Estimated value

U : Not detected at a concentration above the reporting limit shown

Parcel:

B\*: located in Parcel B, but reported in the Parcels C, D and E report

C\*: located in Parcel C, but included in the RAMP and reported in the Parcel B report

NNP: Non-Navy Property, reported by SAP assigned parcel

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Table 4-5. Concentrations of vinyl chloride in groundwater.

Well ID	Parcel	Apr-Jun 2006 (ug/L)		Jul-Sep 2006 (ug/L)		Oct-Dec 2006 (ug/L)		Jan-Mar 2007 (ug/L)		Most Recent (ug/L)
IR01MW02B	NNP	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR01MW03A	NNP	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR01MW05A	NNP	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR01MW09B	E-2	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR01MW10A	E-2	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR01MW26B	E-2	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5
IR01MW31A	E-2	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR01MW366A	E-2	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR01MW366B	E-2	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR01MW38A	E-2	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR01MW403A	NNP	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR01MW403B	E-2	0.5	U	0.5	U	0.5	U			0.5
IR01MW42A	E-2	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR01MW48A	E-2	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR01MW53B	E-2	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR01MW62A	E-2	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR01MW63A	E-2	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR01MWI-7	E-2	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR01MWI-8	E-2	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR01MWLF1A	E-2	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR01MWLF2A	E-2	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR01MWLF4B	E-2	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR02MW126A	E	0.48	J	0.69		0.5	U	0.5	U	0.5
IR02MW147A	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR02MW209A	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR03MW218A2	E	0.44	J	0.35	J	0.5	U	1.2	J	1.2
IR03MW224A	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR03MW228B	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR03MW342A	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR03MW373B	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5
IR04MW13A	E-2	2.2		2.5		2.7		2.3		2.3

Table 4-5. Concentrations of vinyl chloride in groundwater.

Well ID	Parcel	Apr-Jun 2006 (ug/L)		Jul-Sep 2006 (ug/L)		Oct-Dec 2006 (ug/L)		Jan-Mar 2007 (ug/L)		Most Recent (ug/L)
IR04MW36A	E-2	0.5	U	0.5	U	0.5	U	0.5	U	0.5 U
IR04MW37A	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5 U
IR05MW85A	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5 U
IR06MW32A	C	0.5	U	0.40	J	0.5	U	0.32	J	0.34 J
IR06MW35A	C	0.72		0.69		0.5	U	0.5	U	0.5 U
IR06MW40A	C	1.4		0.5	U	30		110		110
IR06MW42A	C*	0.5	U	0.5	U	0.5	U	0.5	U	0.5 U
IR06MW45A	C*	0.5	U	decommissioned						0.5 U
IR06MW47F	C	0.5	U	0.5	U	0.5	U	0.5	U	0.5 U
IR06MW52F	C	0.5	U	0.5	U	0.5	U	0.5	U	0.5 U
IR06MW53F	C	0.5	U	0.5	U	0.5	U	0.5	U	0.5 U
IR06MW54F	C	0.66	J	0.5	U	0.5	U	0.5	U	0.5 U
IR06MW55F	C	0.5	U	0.5	U	0.5	U	0.5	U	0.5 U
IR06MW59A1	C	12		16		8.7		12	J	12 J
IR06MW59A2	C	0.5	U	0.5	U	0.5	U	0.5	U	0.5 U
IR07MW19A	B	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5 UJ
IR07MW20A1	B	0.5	U	0.5	U	0.5	U	0.5	U	0.5 U
IR07MW21A1	B	0.5	U	0.5	U	0.5	U	0.5	U	0.5 U
IR07MW23A	B			0.5	U			0.5	U	0.5 U
IR07MW24A	B	0.5	U	0.5	U	0.5	U	0.5	U	0.5 U
IR07MW25A	B	0.5	U	0.5	U	0.5	U	0.5	U	0.5 U
IR07MW26A	B	0.5	U	0.5	U	0.5	U	0.5	U	0.5 U
IR07MW27A	B			0.5	U			0.5	U	0.5 U
IR07MW28A	NNP	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5 UJ
IR07MWS-2	B	0.5	U	0.5	U	0.5	U	0.5	U	0.5 U
IR07MWS-4	B	0.5	U	0.5	U	0.5	U	0.5	U	0.5 U
IR09MW51F	D	0.5	U	0.5	U	0.5	U	0.5	U	0.5 U
IR09MW61A	D	0.5	U	0.5	U	0.5	U	0.5	U	0.5 U
IR09MW62A	D	0.5	U	0.5	U	0.5	U	0.5	U	0.5 U
IR09MW63A	D	0.5	U	0.5	U	0.5	U	0.5	U	0.5 U
IR10MW12A	B	0.5	U	decommissioned						0.5 U

Table 4-5. Concentrations of vinyl chloride in groundwater.

Well ID	Parcel	Apr-Jun 2006 (ug/L)		Jul-Sep 2006 (ug/L)		Oct-Dec 2006 (ug/L)		Jan-Mar 2007 (ug/L)		Most Recent (ug/L)	
IR10MW13A1	B	0.33	J	0.5	UJ	1.1		0.5	U	0.5	U
IR10MW14A	B	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR10MW28A	B	0.5	U							0.5	U
IR10MW31A1	B	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR10MW33A	B	0.97	J	3.1		12				12	
IR10MW59A	B	0.5	U	0.24	J	0.42	J	2.0		2.0	
IR10MW61A	B	39		15		0.5	U	28		28	
IR10MW62A	B	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR10MW71A	B	2.0		5.1		0.83		3.6		3.6	
IR10MW76A	B	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR10MW79A	B	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR10MW80A	B	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR11MW27A	E	0.5	U	0.5	U			0.5	U	0.5	U
IR12MW13A	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR12MW14A	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR15MW06A	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR15MW10F	E	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR18MW21A	B	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U
IR25MW16A	C	1.9		2.4		2.8		2.8		2.8	
IR25MW17A	C*	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR25MW37A	C*	0.5	U	0.5	U			0.5	U	0.5	U
IR25MW40A	C	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR25MW41A	C	0.5	U	decommissioned						0.5	U
IR25MW52A	C	1.2		decommissioned						1.2	
IR25MW60A1	C					0.5	U			0.5	U
IR25MW60A2	C	0.54		decommissioned						0.54	
IR25MW61A1	B*	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U
IR25MW61A2	B*	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR26MW41A	B	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR28MW122A	C	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
IR28MW125A	C	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

Table 4-5. Concentrations of vinyl chloride in groundwater.

Well ID	Parcel	Apr-Jun 2006 (ug/L)	Jul-Sep 2006 (ug/L)	Oct-Dec 2006 (ug/L)	Jan-Mar 2007 (ug/L)	Most Recent (ug/L)
IR28MW136A	C	120	120	54	96	96
IR28MW140F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW150A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW151A	C	300	340	160	430	430
IR28MW155A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW169A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW171A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW171B	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW172F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW173B	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW188F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW189F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW190F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW200A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW201F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW211F	C	110	85	57	43	43
IR28MW216F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW217A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW221A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW221B	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW255F	C	0.5 U	0.42 J	0.5 U	0.5 U	0.5 U
IR28MW268A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW270A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW272A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW272F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW287A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW294A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW298A	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW299B	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW300F	C	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IR28MW308A	C	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U

**Table 4-5. Concentrations of vinyl chloride in groundwater.**

Well ID	Parcel	Apr-Jun 2006 (ug/L)	Jul-Sep 2006 (ug/L)	Oct-Dec 2006 (ug/L)	Jan-Mar 2007 (ug/L)	Most Recent (ug/L)
IR28MW309B	C	0.5	U	0.5	U	0.5
IR28MW311A	C	0.81		0.5	U	0.5
IR28MW312F	C	0.5	U	0.5	U	0.5
IR28MW315A	C	0.5	U	0.5	U	0.5
IR28MW315B	C	0.5	U	0.5	U	0.5
IR28MW315F	C	0.5	U	0.5	U	0.5
IR28MW350F	C	0.5	U	0.5	U	0.5
IR28MW352A	C	0.5	U	0.5	U	0.5
IR28MW353A	C			0.5	U	0.5
IR28MW353B	C			0.5	U	0.5
IR28MW355F	C	0.5	U	0.5	U	0.5
IR28MW394A	C	0.5	U	0.5	U	0.5
IR28MW394B	C	0.5	U	0.5	U	0.5
IR28MW395F	C	0.5	U	0.5	U	0.5
IR28MW396A	C	0.5	U	0.5	U	0.5
IR28MW396B	C	0.5	U	0.5	U	0.5
IR28MW397B	C	0.5	U	0.5	U	0.5
IR28MW398A	C	0.5	U	0.5	U	0.5
IR28MW398B	C	0.5	U	0.5	U	0.5
IR28MW399B	C	0.5	U	0.5	U	0.5
IR28MW406A	C	0.5	U	0.5	U	0.5
IR28MW407A	C	110		6.0		60
IR29MW56F	C	0.5	U	0.5	U	0.5
IR29MW58F	C	0.5	U	0.5	U	0.5
IR29MW59F	C	0.5	U	0.5	U	0.5
IR29MW85F	C	0.5	U	0.5	J	0.5
IR30MW04F	C	0.5	U	0.5	U	0.5
IR33MW61A	D	0.5	U	0.5	U	0.5
IR36MW11A	E	0.5	U	0.5	U	0.5
IR36MW120B	E	0.5	U	0.5	U	0.5
IR36MW121A	E	0.5	U	0.5	U	0.5

Table 4-5. Concentrations of vinyl chloride in groundwater.

Well ID	Parcel	Apr-Jun 2006 (ug/L)	Jul-Sep 2006 (ug/L)	Oct-Dec 2006 (ug/L)	Jan-Mar 2007 (ug/L)	Most Recent (ug/L)
IR36MW122A	E	0.5	U	0.5	U	0.5
IR36MW123B	E	0.5	U	0.5	U	0.5
IR36MW125A	E	21				21
IR36MW126A	E	0.5	U	0.5	U	0.5
IR36MW127A	E	0.5	U	0.5	U	0.5
IR36MW128A	E	0.5	U	0.5	U	0.5
IR36MW129B	E	0.5	U	0.5	U	0.5
IR36MW12A	E	0.5	U	0.5	U	0.5
IR36MW16A	D	0.5	U	0.5	U	0.5
IR39MW36A	E	0.5	U	0.5	U	0.5
IR44MW08A	D	0.5	U	0.5	U	0.5
IR46MW37A	B	0.5	U	0.5	U	0.5
IR56MW39A	E	0.5	U	0.5	U	0.5
IR58MW25F	C	0.5	U	0.5	U	0.5
IR58MW26A	C	0.5	U	0.5	U	0.5
IR58MW31A	C	91		160		36
IR58MW31F	C	0.5	U	0.5	U	0.5
IR58MW32B	C	1.1		0.30	J	0.25
IR58MW33B	C	0.70		1.8		0.24
IR61MW05A	B		0.5	U		0.5
IR64MW05A	C	0.5	U	0.5	U	0.5
IR70MW04A	D	0.5	U	0.5	U	0.5
IR70MW07A	D	0.5	U	0.5	U	0.5
IR71MW03A	D	0.5	U	0.5	U	0.5
IR71MW04A	D	0.5	U	0.5	U	0.5
IR71MW12B	D	0.5	U	0.76	J	0.5
IR74MW01A	E	0.5	U	0.5	U	0.5
IR75MW05B	NNP	0.5	U	0.5	U	0.5
IR76MW13A	NNP	0.5	U	0.5	U	0.5
PA28P04A	C	0.5	U	0.5	U	0.5
PA36MW01A	E	0.5	U	0.5	U	0.5

**Table 4-5. Concentrations of vinyl chloride in groundwater.**

Well ID	Parcel	Apr-Jun 2006 (ug/L)	Jul-Sep 2006 (ug/L)	Oct-Dec 2006 (ug/L)	Jan-Mar 2007 (ug/L)	Most Recent (ug/L)
PA36MW07A	E	0.5	U	0.5	U	0.5
PA50MW01A	B	0.5	U	0.5	U	0.5
PA50MW03A	C	0.5	U	0.5	U	0.5
PA50MW07A	D	0.5	U	0.5	U	0.5
UT03MW11A	B			0.5	U	0.5

**Notes:**

**Data Qualifiers:**

**D:** Dilution

**J :** Estimated value

**U :** Not detected at a concentration above the reporting limit shown

**Parcel:**

**B\*:** located in Parcel B, but reported in the Parcels C, D and E report

**C\*:** located in Parcel C, but included in the RAMP and reported in the Parcel B report

**NNP:** Non-Navy Property, reported by SAP assigned parcel

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Table 4-6. Concentrations of hexavalent chromium in groundwater.

Well ID	Parcel	Apr-Jun 2006 (ug/L)		Jul-Sep 2006 (ug/L)		Oct-Dec 2006 (ug/L)		Jan-Mar 2006 (ug/L)		Most Recent (ug/L)	
IR02MW149A	E	0.5	U	6.0		0.5	UJ	0.5	U	0.5	U
IR02MWB-1	E	0.5	U	0.5	UJ	0.5	UJ	7.2		7.2	
IR03MW218A2	E	0.5	UJ	0.5	U	1.3	J	0.24	J	0.24	J
IR03MW342A	E	0.5	U	0.5	U	0.19	J	0.5	U	0.5	U
IR06MW42A	C*			0.5	U	0.5	UJ	0.5	U	0.5	U
IR06MW50F	C	121		decommissioned						121	
IR06MW54F	C	70.4	J	73.2	J	83	J	70.6		70.6	
IR07MW19A	B	0.5	U	0.5	UJ	9.2		3.8		3.8	
IR07MW20A1	B	0.5	U	0.5	U	20.1		17.4		17.4	
IR07MW21A1	B	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U
IR07MW23A	B			0.5	U			0.5	U	0.5	U
IR07MW24A	B	0.5	U	0.5	UJ	0.5	U	0.86		0.86	
IR07MW25A	B	0.5	U	0.5	UJ	0.5	U	0.47	J	0.47	J
IR07MW26A	B	0.5	U	0.5	UJ	8.0		19.3		19.3	
IR07MW27A	B			0.5	U			0.5	U	0.5	U
IR07MW28A	NNP	0.5	U	0.5	UJ			0.092	U	0.092	U
IR07MWS-2	B	0.5	U	0.5	UJ	8.4	J	0.5	U	0.5	U
IR07MWS-4	B	0.5	U	0.5	U	0.5	U	0.12	U	0.12	U
IR09MW35A	D	46.9	J	73.1	J	88.3	J	57.5		57.5	
IR09MW37A	D	42.2	J	3.8	J	2.9	J	43		43	
IR09MW38A	D	13.3	J	3.1	J	7.0	J	28.4		28.4	
IR09MW39A	D	6.4		5.8	J	8.2	J	10.2		10.2	
IR09MW45F	D	6.5		8.9	J	11.8	J	8.8		8.8	
IR09MW51F	D	26.8	J	33.2	J	47.6	J	37.3		37.3	
IR09MW54B	D	9.5		0.5	UJ	4.7	J	4.3		4.3	
IR09MW61A	D	4.8		8.8	J	7.9	J	6.4		6.4	
IR09MW62A	D	37.1		35.0	J	37.0	J	41.1		41.1	
IR09MW63A	D	27.5		60.6	J	77.9	J	62.8	J	62.8	J
IR09PPY1	D	511		462		515	J	579		579	
IR10MW12A	B	487		decommissioned						487	

Table 4-6. Concentrations of hexavalent chromium in groundwater.

Well ID	Parcel	Apr-Jun 2006 (ug/L)		Jul-Sep 2006 (ug/L)		Oct-Dec 2006 (ug/L)		Jan-Mar 2006 (ug/L)		Most Recent (ug/L)
IR10MW31A1	B	0.5	U	0.5	U	6.8		0.5	U	0.5 U
IR18MW21A	B	0.5	U	0.15	J	0.5	U	0.5	U	0.5 U
IR25MW17A	C*			4.7	J			3.3		3.3
IR26MW41A	B	0.5	U	0.5	UJ	0.5	UJ	0.5	U	0.5 U
IR26MW46A	B	0.5	UJ	0.5	UJ	0.5	U	0.5	U	0.5 U
IR26MW47A	B	0.5	U	0.5	UJ	16.2	J	14.1		14.1
IR26MW48A	B	0.5	U	0.5	U	12.1	J	9.4		9.4
IR26MW49A	B			0.5	UJ	13.3	J	18.2		18.2
IR26MW50A	B			0.5	UJ	11.5	J	4.5		4.5
IR28MW125A	C	73.7	J	94.8	J	146	J	117		117
IR28MW151A	C	0.5	UJ	0.5	U			4.1		4.1
IR29MW72F	C	1.4		0.5	UJ	0.5	UJ	0.38	J	0.38 J
IR33MW61A	D	107		7.3	J	34.6	J			34.6 J
IR46MW37A	B	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5 U
IR58MW25F	C	51.0	J	54.2	J	55.8	J	57.4		57.4
IR61MW05A	B			0.5	UJ			23.7		23.7
PA50MW01A	B	0.35	J	0.5	UJ					0.5 UJ
PA50MW12A	D	29.7		15.0		10.1	J	11.8	J	11.8 J
UT03MW11A	B			1.9	J			6.5		6.5

Notes:

Data Qualifiers:

D: Dilution

J : Estimated value

U : Not detected at a concentration above the reporting limit shown

Parcel:

C\*: Located in Parcel C, but included in the RAMP and reported in the Parcel B report

NNP: Non-Navy Property, reported by SAP assigned parcel

Table 4-7. Exceedances of water quality criteria (January-March 2007).

Well ID	Parcel	Area of Concern	Analyte	Result	Validation Code	Fed MCL (ug/L)	Cal MCL (ug/L)	HGAL (ug/L)	NAWQC (ug/L)
IR06MW32A	C	RU-C5	TRICHLOROETHENE	11		5	5		200
IR06MW35A	C	RU-C5	CIS-1,2-DICHLOROETHENE	7.3		70	6		22,400
IR06MW40A	C	RU-C5	VINYL CHLORIDE	110		2	0.5		
IR06MW54F	C	RU-C5	CARBON TETRACHLORIDE	4.7		5	0.5		6400
IR06MW54F	C	RU-C5	HEXAVALENT CHROMIUM	70.6					50
IR06MW54F	C	RU-C5	CHROMIUM	85		100	50	15.66	1,030
IR06MW55F	C	RU-C5	CARBON TETRACHLORIDE	0.61		5	0.5		6,400
IR06MW59A1	C	RU-C5	BENZENE	1.1	J	5	1		510
IR06MW59A1	C	RU-C5	CARBON TETRACHLORIDE	11	J	5	0.5		6,400
IR06MW59A1	C	RU-C5	CIS-1,2-DICHLOROETHENE	66	J	70	6		22,400
IR06MW59A1	C	RU-C5	METHYLENE CHLORIDE	7.8	J	5	5		6,400
IR06MW59A1	C	RU-C5	TETRACHLOROETHENE	110		5	5		450
IR06MW59A1	C	RU-C5	TRICHLOROETHENE	430		5	5		200
IR06MW59A1	C	RU-C5	VINYL CHLORIDE	12	J	2	0.5		
IR25MW16A	C	RU-C5	CIS-1,2-DICHLOROETHENE	96		70	6		22,400
IR25MW16A	C	RU-C5	TRANS-1,2-DICHLOROETHENE	12		100	10		22,400
IR25MW16A	C	RU-C5	TRICHLOROETHENE	200		5	5		200
IR25MW16A	C	RU-C5	VINYL CHLORIDE	2.8		2	0.5		
IR28MW125A	C	RU-C1	HEXAVALENT CHROMIUM	117					50
IR28MW125A	C	RU-C1	CHROMIUM	110		100	50	15.66	1,030
IR28MW136A	C	RU-C1	BENZENE	1.4		5	1		510
IR28MW136A	C	RU-C1	CIS-1,2-DICHLOROETHENE	130		70	6		22,400
IR28MW136A	C	RU-C1	TETRACHLOROETHENE	16		5	5		450
IR28MW136A	C	RU-C1	TRICHLOROETHENE	8.9		5	5		200
IR28MW136A	C	RU-C1	VINYL CHLORIDE	96		2	0.5		
IR28MW151A	C	RU-C1	CIS-1,2-DICHLOROETHENE	1,200		70	6		22,400
IR28MW151A	C	RU-C1	COPPER	3.8	J	1,300	1,300	28	3.1
IR28MW151A	C	RU-C1	TETRACHLOROETHENE	24	J	5	5		450
IR28MW151A	C	RU-C1	TRANS-1,2-DICHLOROETHENE	47	J	100	10		22,400

Table 4-7. Exceedances of water quality criteria (January-March 2007).

Well ID	Parcel	Area of Concern	Analyte	Result	Validation Code	Fed MCL (ug/L)	Cal MCL (ug/L)	HGAL (ug/L)	NAWQC (ug/L)
IR28MW151A	C	RU-C1	TRICHLOROETHENE	400		5	5		200
IR28MW151A	C	RU-C1	VINYL CHLORIDE	430		2	0.5		
IR28MW171A	C	IR28	PCB-1260	0.49	J	0.5	0.5		0.03
IR28MW188F	C	IR28	CARBON TETRACHLORIDE	24		5	0.5		6,400
IR28MW190F	C	RU-C2	CARBON TETRACHLORIDE	25		5	0.5		6,400
IR28MW211F	C	RU-C4	1,2-DICHLOROETHANE	26		5	0.5		11,300
IR28MW211F	C	RU-C4	BENZENE	1.4		5	1		510
IR28MW211F	C	RU-C4	CIS-1,2-DICHLOROETHENE	120		70	6		22,400
IR28MW211F	C	RU-C4	TRICHLOROETHENE	18		5	5		200
IR28MW211F	C	RU-C4	VINYL CHLORIDE	43		2	0.5		
IR28MW216F	C	RU-C2	CIS-1,2-DICHLOROETHENE	7.2		70	6		22,400
IR28MW272F	C	RU-C4	CARBON TETRACHLORIDE	0.96		5	0.5		6,400
IR28MW272F	C	RU-C4	TRICHLOROETHENE	22		5	5		200
IR28MW298A	C	RU-C4	TRICHLOROETHENE	6.3		5	5		200
IR28MW300F	C	RU-C2	CARBON TETRACHLORIDE	7.0	J	5	0.5		6,400
IR28MW300F	C	RU-C2	TRICHLOROETHENE	11	J	5	5		200
IR28MW312F	C	RU-C4	TRICHLOROETHENE	6.5		5	5		200
IR28MW315F	C	RU-C4	CARBON TETRACHLORIDE	1.2		5	0.5		6,400
IR28MW350F	C	RU-C4	TRICHLOROETHENE	22		5	5		200
IR28MW355F	C	RU-C4	TRICHLOROETHENE	16		5	5		200
IR28MW397B	C	RU-C2	CARBON TETRACHLORIDE	6.2		5	0.5		6,400
IR28MW406A	C	RU-C4	CIS-1,2-DICHLOROETHENE	15		70	6		22,400
IR28MW406A	C	RU-C4	TRICHLOROETHENE	93		5	5		200
IR28MW407A	C	RU-C4	1,2-DICHLOROETHANE	1.3		5	0.5		11,300
IR28MW407A	C	RU-C4	1,4-DICHLOROBENZENE	25		75	5		129
IR28MW407A	C	RU-C4	CIS-1,2-DICHLOROETHENE	24		70	6		22,400
IR28MW407A	C	RU-C4	VINYL CHLORIDE	60		2	0.5		
IR58MW25F	C	RU-C2	HEXAVALENT CHROMIUM	57.4					50
IR58MW25F	C	RU-C2	CHROMIUM	71		100	50	15.66	1,030

Table 4-7. Exceedances of water quality criteria (January-March 2007).

Well ID	Parcel	Area of Concern	Analyte	Result	Validation Code	Fed MCL (ug/L)	Cal MCL (ug/L)	HGAL (ug/L)	NAWQC (ug/L)
IR58MW31A	C	RU-C2	1,4-DICHLOROBENZENE	100		75	5		129
IR58MW31A	C	RU-C2	BENZENE	5.6		5	1		510
IR58MW31A	C	RU-C2	CHLOROBENZENE	810		100	70		129
IR58MW31A	C	RU-C2	VINYL CHLORIDE	36		2	0.5		
IR58MW31F	C	RU-C2	CARBON TETRACHLORIDE	0.85		5	0.5		6,400
IR58MW32B	C	RU-C2	1,4-DICHLOROBENZENE	14		75	5		129
IR58MW32B	C	RU-C2	CHLOROBENZENE	74		100	70		129
IR58MW32B	C	RU-C2	CIS-1,2-DICHLOROETHENE	8.7		70	6		22,400
IR58MW32B	C	RU-C2	TETRACHLOROETHENE	14		5	5		450
IR58MW32B	C	RU-C2	TRICHLOROETHENE	5.5		5	5		200
IR09MW35A	D	IR09	HEXAVALENT CHROMIUM	57.5					50
IR09MW35A	D	IR09	CHROMIUM	53.4		100	50	15.66	1,030
IR09MW37A	D	IR09	CHROMIUM	52.1		100	50	15.66	1,030
IR09MW38A	D	IR09	CHROMIUM	28.1		100	50	15.66	1,030
IR09MW51F	D	IR09	CHROMIUM	36.8	J	100	50	15.66	1,030
IR09MW51F	D	IR09	TRICHLOROETHENE	25	J	5	5		200
IR09MW62A	D	IR09	CHROMIUM	34.3		100	50	15.66	1,030
IR09MW63A	D	IR09	HEXAVALENT CHROMIUM	62.8					50
IR09MW63A	D	IR09	CHROMIUM	68.9	J	100	50	15.66	1,030
IR09PPY1	D	IR09	HEXAVALENT CHROMIUM	579					50
IR09PPY1	D	IR09	CHROMIUM	581		100	50	15.66	1,030
PA50MW07A	D	IR32	COPPER	4.9	J	1,300	1,300	28	3.1
PA50MW07A	D	IR32	SILVER	0.8	J	100	100	7.43	0.19
IR02MW126A	E	NBFA	COPPER	136		1,300	1,300	28	3.1
IR02MW126A	E	NBFA	ZINC	514				75.68	81
IR02MW149A	E	NBFA	COPPER	10.2		1,300	1,300	28	3.1
IR02MW209A	E	IR02	ANTIMONY	7.5		6	6	43.26	
IR02MW209A	E	IR02	MERCURY	0.96		2	2	0.6	0.94
IR02MWB-1	E	ORPA	ANTIMONY	20.2		6	6	43.26	

Table 4-7. Exceedances of water quality criteria (January-March 2007).

Well ID	Parcel	Area of Concern	Analyte	Result	Validation Code	Fed MCL (ug/L)	Cal MCL (ug/L)	HGAL (ug/L)	NAWQC (ug/L)
IR02MWB-1	E	ORPA	COPPER	90.7		1,300	1,300	28	3.1
IR02MWB-1	E	ORPA	NICKEL	11.8		100	96.5	8.2	
IR03MW218A2	E	ORPA	1,4-DIOXANE	2.7		2			
IR03MW218A2	E	ORPA	BARIUM	5,380		2,000	1,000	504	
IR03MW218A2	E	ORPA	BENZENE	12	J	5	1		510
IR03MW218A2	E	ORPA	VINYL CHLORIDE	1.2	J	2	0.5		
IR04MW37A	E	ILA	TRICHLOROETHENE	7.8		5	5		200
IR05MW85A	E	IR36	MERCURY	0.85		2	2	0.6	0.94
IR01MW09B	E-2	ILA	AMMONIA (as N)	2,600					35
IR01MW09B	E-2	ILA	CYANIDE	5.9	J	200	200		1
IR01MW10A	E-2	ILA	CYANIDE	6.5	J	200	200		1
IR01MW10A	E-2	ILA	NICKEL	26.7			100	96.5	8.2
IR01MW26B	E-2	ILA	AMMONIA (as N)	5,700					35
IR01MW26B	E-2	ILA	ANTIMONY	14.1		6	6	43.26	
IR01MW26B	E-2	ILA	LEAD	9.1		15	15	14.44	8.1
IR01MW26B	E-2	ILA	SELENIUM	42.5		50	50	14.5	71
IR01MW26B	E-2	ILA	SILVER	1.2		100	100	7.43	0.19
IR01MW31A	E-2	ILA	AMMONIA (as N)	3,400					35
IR01MW366A	E-2	ILA	AMMONIA (as N)	7,500					35
IR01MW366A	E-2	ILA	ARSENIC	462		10	50	27.34	36
IR01MW366A	E-2	ILA	LEAD	10		15	15	14.44	8.1
IR01MW366A	E-2	ILA	NICKEL	13.6			100	96.5	8.2
IR01MW366A	E-2	ILA	SELENIUM	474		50	50	14.5	71
IR01MW366A	E-2	ILA	THALLIUM	132		2	2	12.97	213
IR01MW366B	E-2	ILA	AMMONIA (as N)	4,600					35
IR01MW366B	E-2	ILA	ANTIMONY	10.4		6	6	43.26	
IR01MW366B	E-2	ILA	ARSENIC	11.1		10	50	27.34	36
IR01MW366B	E-2	ILA	SELENIUM	34.7		50	50	14.5	71
IR01MW366B	E-2	ILA	SILVER	1.1		100	100	7.43	0.19

Table 4-7. Exceedances of water quality criteria (January-March 2007).

Well ID	Parcel	Area of Concern	Analyte	Result	Validation Code	Fed MCL (ug/L)	Cal MCL (ug/L)	HGAL (ug/L)	NAWQC (ug/L)
IR01MW38A	E-2	ILA	AMMONIA (as N)	23,600					35
IR01MW38A	E-2	ILA	ANTIMONY	26.8		6	6	43.26	
IR01MW38A	E-2	ILA	BARIUM	924		2,000	1,000	504	
IR01MW38A	E-2	ILA	CYANIDE	12		200	200		1
IR01MW38A	E-2	ILA	LEAD	9.2		15	15	14.44	8.1
IR01MW38A	E-2	ILA	SELENIUM	123		50	50	14.5	71
IR01MW38A	E-2	ILA	SILVER	2.5		100	100	7.43	0.19
IR01MW42A	E-2	ILA	AMMONIA (as N)	7,800					35
IR01MW42A	E-2	ILA	ANTIMONY	14.5		6	6	43.26	
IR01MW42A	E-2	ILA	BARIUM	537		2,000	1,000	504	
IR01MW42A	E-2	ILA	NICKEL	15.6			100	96.5	8.2
IR01MW48A	E-2	ILA	AMMONIA (as N)	13,000					35
IR01MW48A	E-2	ILA	BARIUM	876		2,000	1,000	504	
IR01MW48A	E-2	ILA	BENZENE	2.3		5	1		510
IR01MW53B	E-2	ILA	AMMONIA (as N)	310	J				35
IR01MW53B	E-2	ILA	COPPER	5.2		1,300	1,300	28	3.1
IR01MW63A	E-2	ILA	ANTIMONY	6.3		6	6	43.26	
IR01MW63A	E-2	ILA	CYANIDE	9.5	J	200	200		1
IR01MWLF1A	E-2	ILA	AMMONIA (as N)	2,600					35
IR01MWLF1A	E-2	ILA	CYANIDE	18		200	200		1
IR01MWLF2A	E-2	ILA	AMMONIA (as N)	1,500					35
IR01MWLF2A	E-2	ILA	ANTIMONY	11.8		6	6	43.26	
IR01MWLF2A	E-2	ILA	COPPER	10.9		1,300	1,300	28	3.1
IR01MWLF2A	E-2	ILA	NICKEL	15.4			100	96.5	8.2
IR01MWLF4B	E-2	ILA	AMMONIA (as N)	9,000					35
IR01MWLF4B	E-2	ILA	ANTIMONY	16.8		6	6	43.26	
IR01MWLF4B	E-2	ILA	LEAD	10		15	15	14.44	8.1
IR01MWLF4B	E-2	ILA	SELENIUM	55		50	50	14.5	71
IR01MWLF4B	E-2	ILA	SILVER	1.6		100	100	7.43	0.19

Table 4-7. Exceedances of water quality criteria (January-March 2007).

Well ID	Parcel	Area of Concern	Analyte	Result	Validation Code	Fed MCL (ug/L)	Cal MCL (ug/L)	HGAL (ug/L)	NAWQC (ug/L)
IR04MW13A	E-2	ILA	1,1-DICHLOROETHANE	36			5		
IR04MW13A	E-2	ILA	1,1-DICHLOROETHENE	35		7	6		22,400
IR04MW13A	E-2	ILA	1,2-DICHLOROETHANE	0.7		5	0.5		11,300
IR04MW13A	E-2	ILA	AMMONIA (as N)	420					35
IR04MW13A	E-2	ILA	CIS-1,2-DICHLOROETHENE	39		70	6		22,400
IR04MW13A	E-2	ILA	NICKEL	22.8			100	96.5	8.2
IR04MW13A	E-2	ILA	TETRACHLOROETHENE	52		5	5		450
IR04MW13A	E-2	ILA	TRICHLOROETHENE	52		5	5		200
IR04MW13A	E-2	ILA	VINYL CHLORIDE	2.3		2	0.5		
IR04MW36A	E-2	ILA	AMMONIA (as N)	240	J				35
IR04MW36A	E-2	ILA	ARSENIC	227		10	50	27.34	36
IR01MW02B	NNP	ILA	CYANIDE	5.9	J	200	200		1
IR01MW03A	NNP	ILA	AMMONIA (as N)	130	J				35
IR01MW03A	NNP	ILA	CYANIDE	5.3	J	200	200		1
IR01MW05A	NNP	ILA	1,4-DICHLOROBENZENE	6.1		75	5		129
IR01MW05A	NNP	ILA	AMMONIA (as N)	4,200					35
IR01MW05A	NNP	ILA	BARIUM	584		2,000	1,000	504	
IR01MW05A	NNP	ILA	BENZENE	2.7		5	1		510
IR01MW05A	NNP	ILA	NICKEL	89			100	96.5	8.2
IR01MW403A	NNP	ILA	AMMONIA (as N)	1,500					35
IR75MW05B	NNP	ILA	CHROMIUM	16.8		100	50	15.66	1,030
IR75MW05B	NNP	ILA	NICKEL	11.1			100	96.5	8.2

Notes:

Shaded values indicate exceedance of criterion

Parcel:

NNP: Non-Navy property, reported by SAP assigned parcel

Data Qualifiers:

J: Detected below the practical quantitation limit but above the method detection limit; estimated value

Acronyms/Abbreviations:

HGAL: Hunters Point Groundwater Ambient Level

ILA: Industrial Landfill Area

IR: Installation Restoration

MCL: Maximum Contaminant Level

NAWQC: National Ambient Water Quality Criteria

NBFA: Northwest Bay Fill Area

ORPA: Oil Recovery Pond Area

RU: Remedial Unit

ug/L: Micrograms per liter

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Table 4-8. Variance tracking table.

Well ID	Parcel	SAP Requirement Affected	2Q2006 Variance	3Q2006 Variance	4Q2006 Variance	1Q2007 Variance	Corrective Action
IR01MW17B	E	DTW and sampling	obstructed	obstructed	obstructed	obstructed, only affects sampling	Evaluate need for substitute well
IR01MW366A	E-2	sampling	drawdown/water volume	drawdown/water volume	drawdown/water volume	drawdown/water volume	Scheduled for redevelopment
IR01MW367A	E-2	DTW and sampling	obstructed	obstructed	obstructed	obstructed, damaged beyond repair	Evaluate need for replacement well
IR01MW58A	E-2	DTW and sampling	damaged	damaged	damaged	damaged	Evaluate need for replacement well
IR01MWI-6	E-2	sampling	damaged	damaged	damaged	damaged	Evaluate need for replacement well
IR01MWI-7	E-2	sampling	drawdown/water volume	none	drawdown/water volume	none	Scheduled for redevelopment
IR01MWLF4A	E-2	DTW and sampling	inaccessible	inaccessible	inaccessible	Inaccessible and damaged	Examine well when accessible
IR02MW114A1	E-2	DTW	none	none	inaccessible	inaccessible	Proceed when accessible
IR02MW114A2	E	DTW	inaccessible	inaccessible	inaccessible	damaged	Evaluate need for replacement well
IR02MW175A	E	DTW and sampling	inaccessible*	inaccessible	inaccessible	inaccessible	Proceed when accessible
IR02MW183A	E	DTW	inaccessible	inaccessible	inaccessible	inaccessible	Proceed when accessible
IR02MW206A2	E	DTW and sampling	damaged	damaged	damaged	damaged	Scheduled for repair
IR02MWB-2	E	sampling	damaged	damaged	damaged	damaged	Scheduled for repair
IR02MWB-5	E	sampling	damaged	damaged	damaged	damaged	Scheduled for repair
IR02MWC5-W	E	DTW and sampling	inaccessible**	inaccessible	inaccessible	inaccessible	Proceed when accessible
IR04MW31A	E-2	DTW	inaccessible	inaccessible	inaccessible	inaccessible	Proceed when accessible
IR11MW25A	E	DTW and sampling	damaged	damaged	damaged	damaged	Scheduled for repair

**Table 4-8. Variance tracking table.**

Well ID	Parcel	SAP Requirement Affected	2Q2006 Variance	3Q2006 Variance	4Q2006 Variance	1Q2007 Variance	Corrective Action
IR11MW27A	E	sampling	drawdown/water volume	drawdown/water volume	drawdown/water volume	drawdown/water volume	Scheduled for redevelopment
IR12MW17A	E	DTW and sampling	none	none	inaccessible	inaccessible	Proceed when accessible
IR25MW41A	C	sampling	none	damaged	damaged	decommissioned	Scheduled for replacement
IR25MW60A1	C	DTW and sampling	none	inaccessible	inaccessible	inaccessible	Proceed when accessible
IR28MW189F	C	DTW and sampling	none	none	drawdown/water volume	drawdown/water volume	Scheduled for redevelopment
IR28MW190F	C	DTW and sampling	none	drawdown/water volume	drawdown/water volume	drawdown/water volume	Scheduled for redevelopment
IR28MW398A	C	sampling	drawdown/water volume	none	drawdown/water volume	none	Scheduled for redevelopment
IR28MW933F	C	DTW	Inaccessible (obstructed)	Inaccessible (obstructed)	Inaccessible (obstructed)	obstructed by sampling equipment	Continue to measure nearby wells
IR28MW934F	C	DTW	Inaccessible (obstructed)	Inaccessible (obstructed)	Inaccessible (obstructed)	obstructed by sampling equipment	Continue to measure nearby wells
IR36MW125A	E	sampling	drawdown/water volume	drawdown/water volume	drawdown/water volume	drawdown/water volume	Scheduled for redevelopment
IR36MW126A	E	sampling	drawdown/water volume	drawdown/water volume	drawdown/water volume	none	Scheduled for redevelopment
IR36MW137A	E	DTW	Dry well	Dry well	Dry well	Dry since March 2004. Screen at 4.0-5.5 ft bgs.	Continue to check well quarterly
IR39MW33A	E	sampling	inaccessible	inaccessible	inaccessible	inaccessible	Proceed when accessible
PA50MW12A	D	DTW and sampling	none	none	drawdown/water volume	drawdown/water volume	Scheduled for redevelopment

**Note:**

Temporary variances such as standing water, vehicles covering wells, and safety hazards are not tracked in this table.

\*In 2Q2006, well IR01MW175A was thought to be decommissioned or destroyed.

\*\*In 2Q2006, well IR02MWC5-W was assumed to be decommissioned; however, the well is buried beneath a haul road and the well condition is not known.

"Drawdown/water volume" includes: drawdown exceeding 25% of water column; insufficient water for sampling; low yield or slow recharge resulting in less than 8 liters purged before sample collection; or dry well.

**Decommissioned Wells:**

IR01MW07A, IR01MW43A, IR01MW44A, IR01MW47B, IR01MWI-3, IR02MW127B, IR02MW141A, IR02MW300A, IR02MW372A, IR02MWB-3, IR02P97AB, IR06MW45A, IR06MW50F, IR06MW58F, IR07MWS-3, IR10MW12A, IR25MW18A, IR25MW20A, IR25MW41A, IR25MW52A, IR25MW60A2, IR28MW290A, IR28MW324A, IR28MW326A, IR28MW333A, IR29MW57A, IR60MW08A, PA24MW02A, PA36MW05A

**Immiscible phase wells** that have historically contained free product consisting of either light non-aqueous phase liquid (LNAPL) or dense non-aqueous phase liquid (DNAPL):  
IR03MW146A, IR03MW173A, IR03MW218A1, IR03MW225A, IR03MW226A, IR03MW369A, IR03MW370A, IR03MW371A, IR03MWO-1, IR03MWO-2, IR03MWO-3, IR12MW21A, IR25MW11A, IR39MW21A, and PA36MW08A.

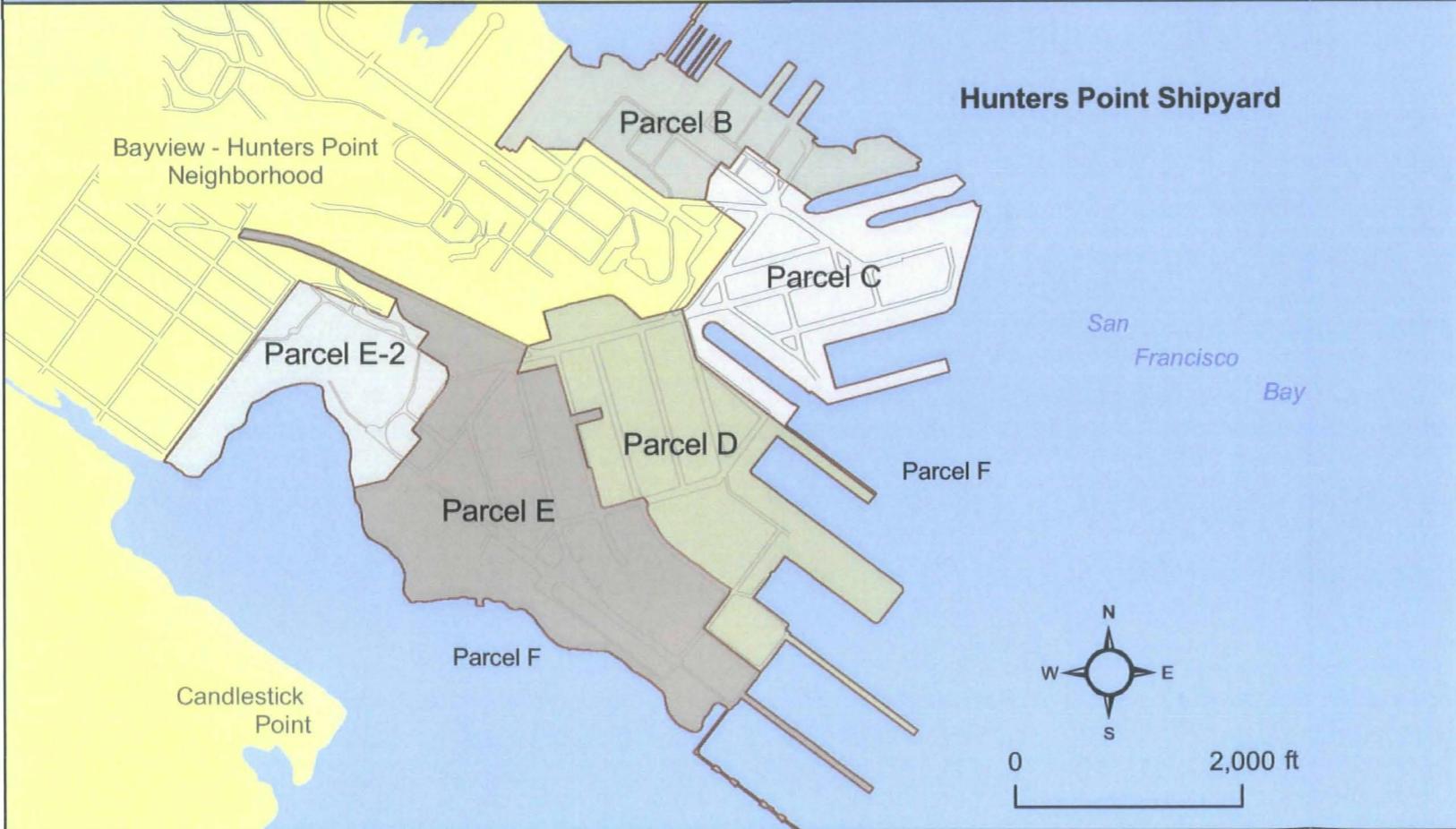
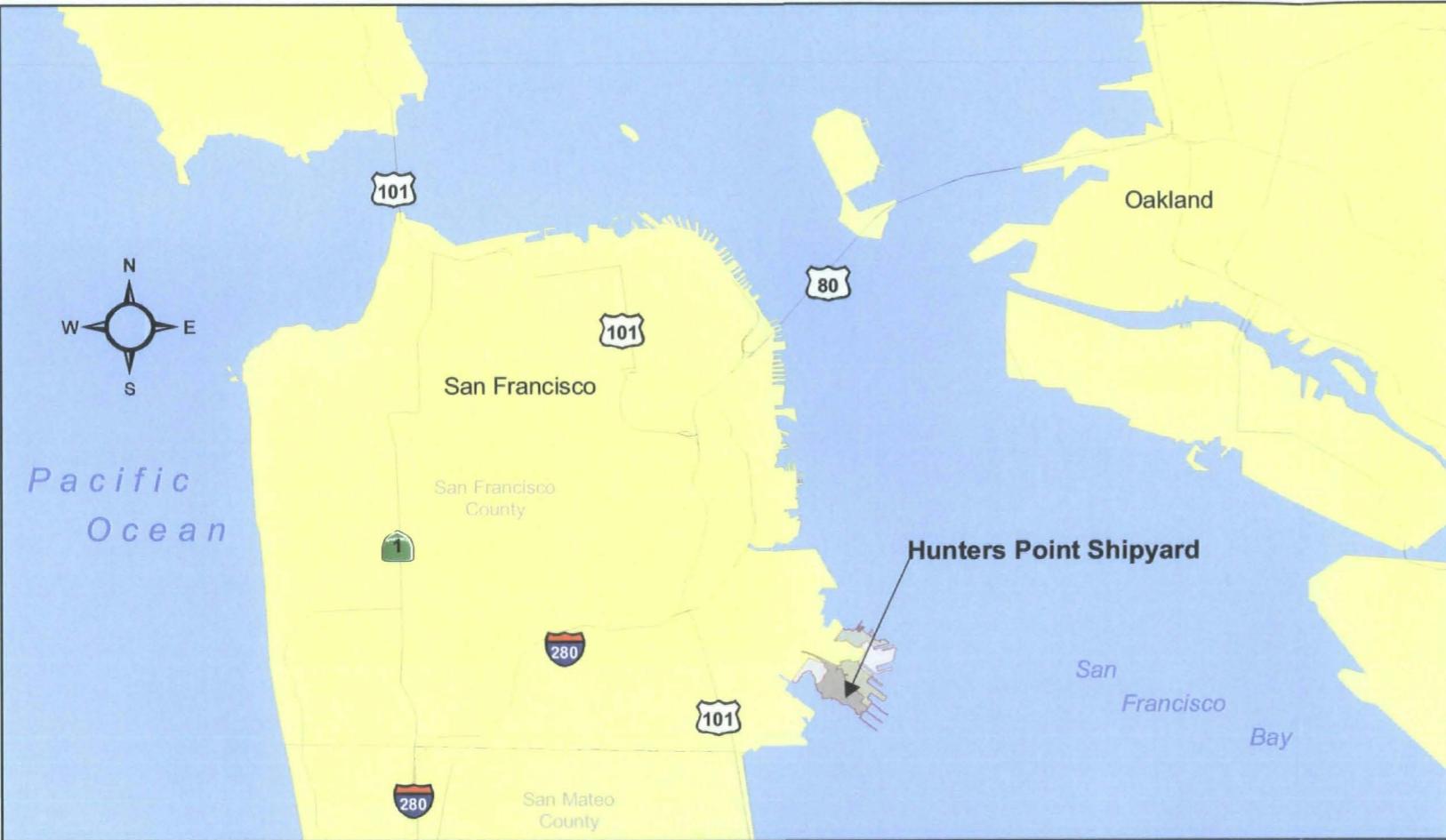
**"Never installed" Wells (wells proposed in the SAP but not installed):**

IR04MW336A, IR07MW29A, IR07MW30A, IR07MW31A, IR25MW35A, IR25MW38A, IR25MW62F, IR25MW63A2, IR25MW64A2, IR28MW34A

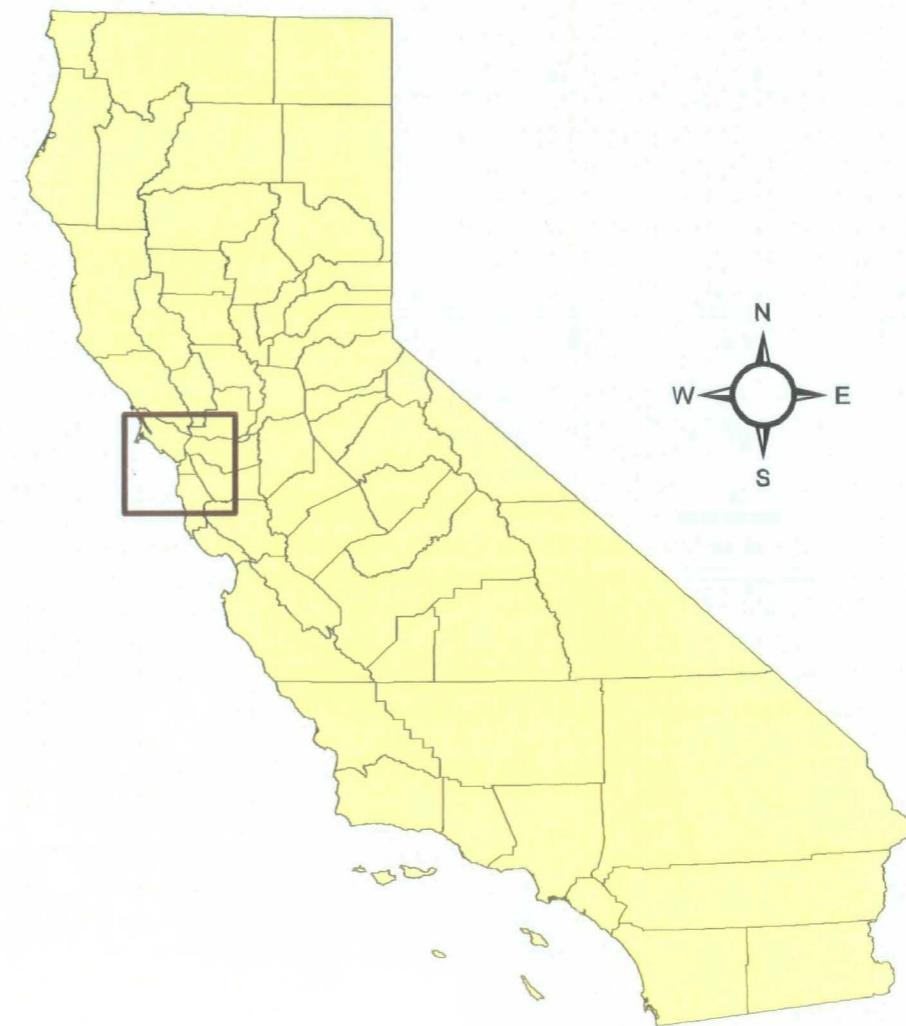
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## **Figures**

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### Geographic setting

FIGURE

1 - 1

Parcel C, D, E, and F  
Quarterly Groundwater Monitoring Report (January - March 2007)  
June 2007 CEKA-3001-0000-0002

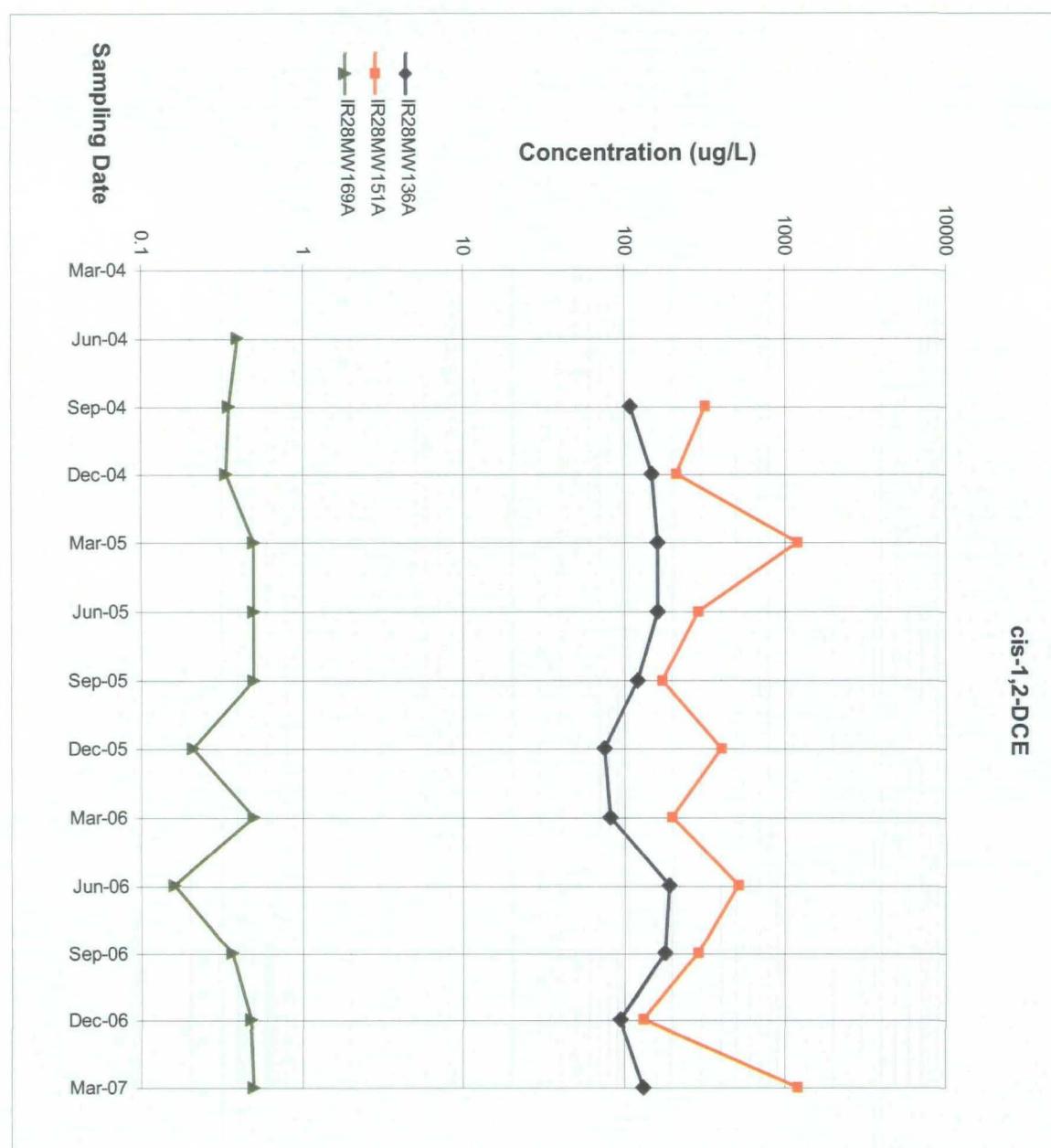
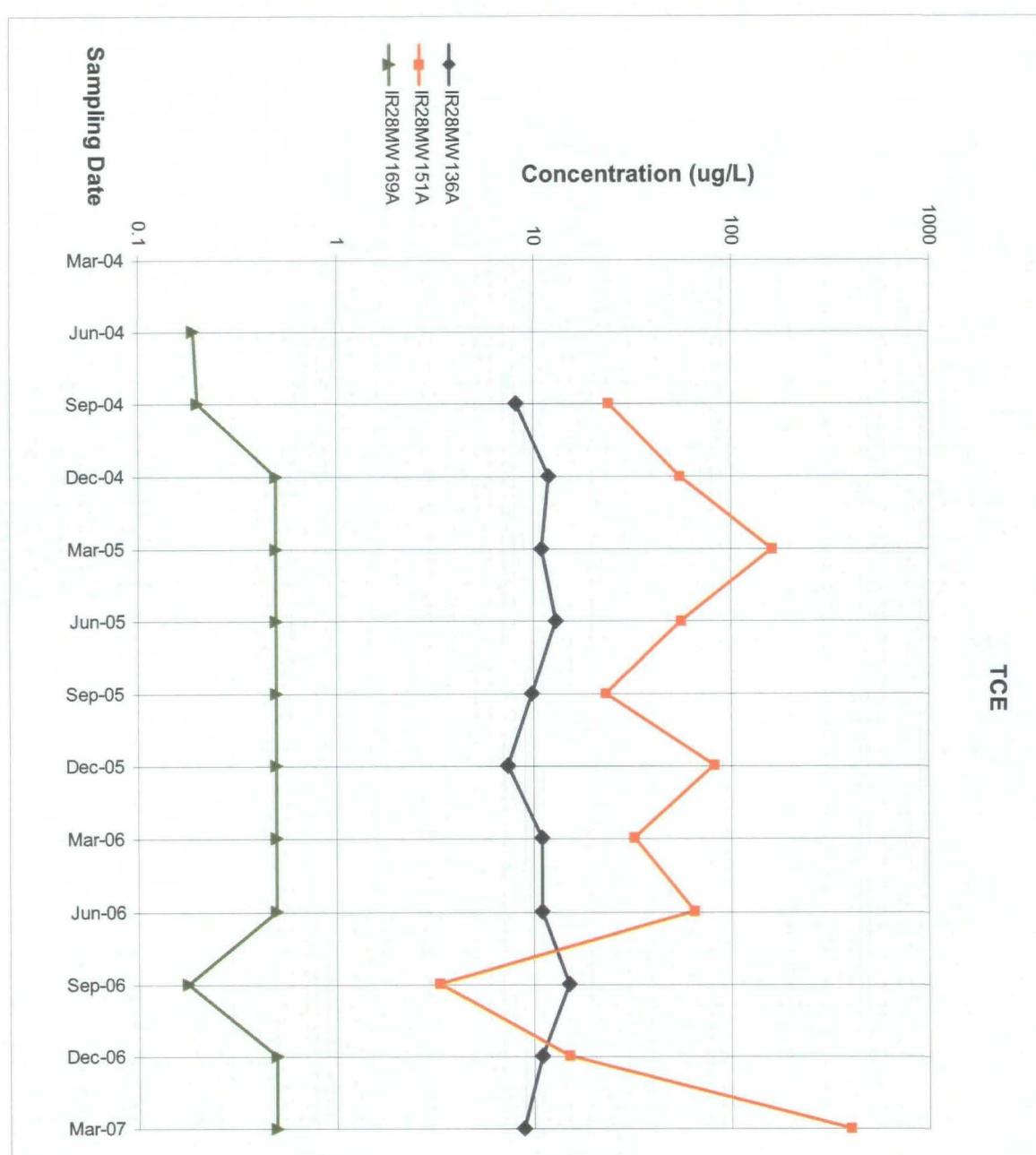
C<sup>2</sup>E KLEINFELDER  
7901 Stoneridge Drive, Suite 505, Pleasanton, CA 94588-3677  
PH. (925)463-7301 FAX. (925)463-7351



Naval Facilities Engineering Command  
Hunters Point Shipyard, San Francisco, California  
U.S. Navy, Southwest Division, NAVFAC, San Diego, California

S. Lovelady, CE2 Corporation. Print: 06/2007

Note: Practical quantitation limit 0.5 ug/L.



**CE**<sup>2</sup>  
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**NAVFAC**  
Naval Facilities Engineering Command  
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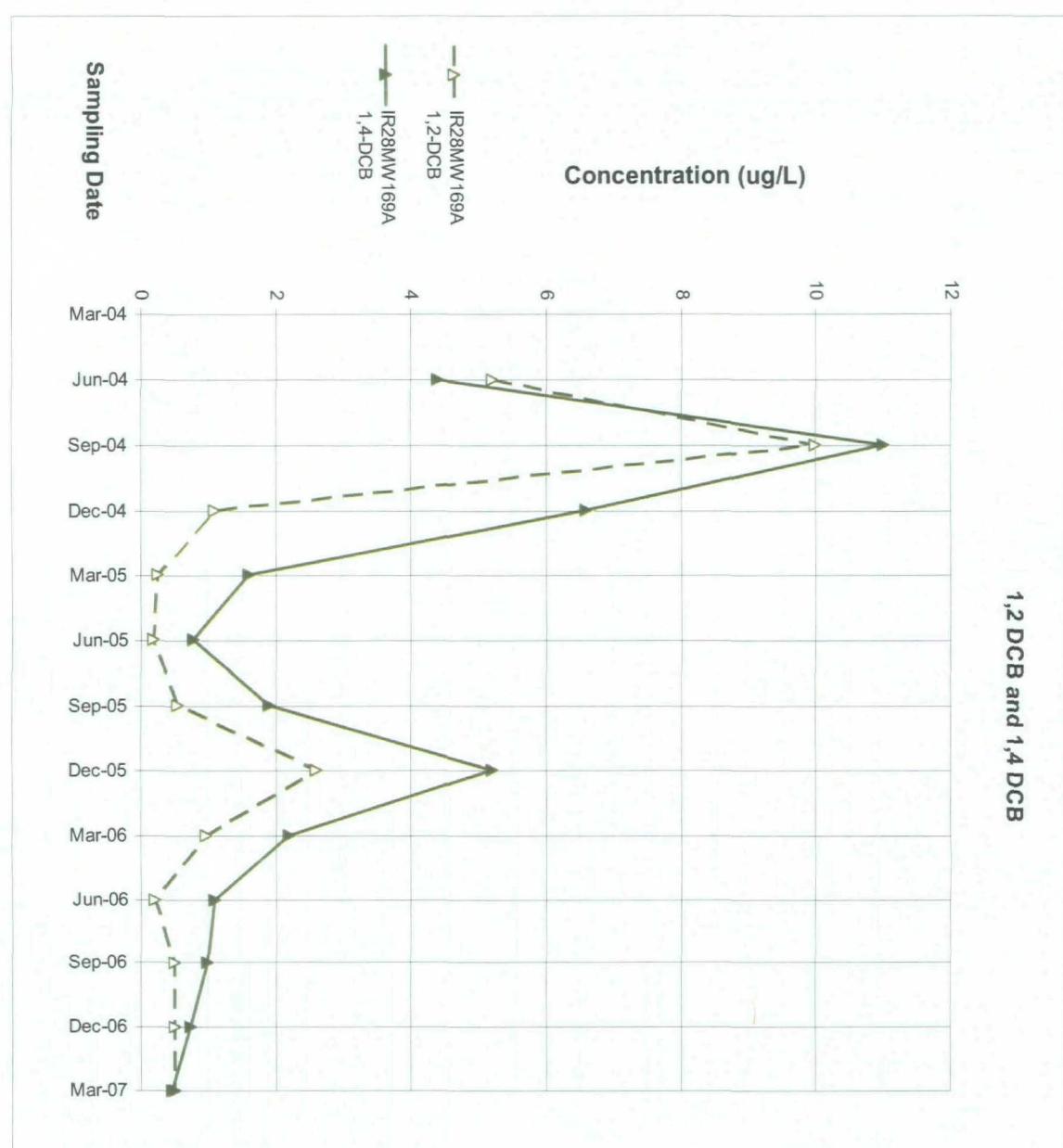
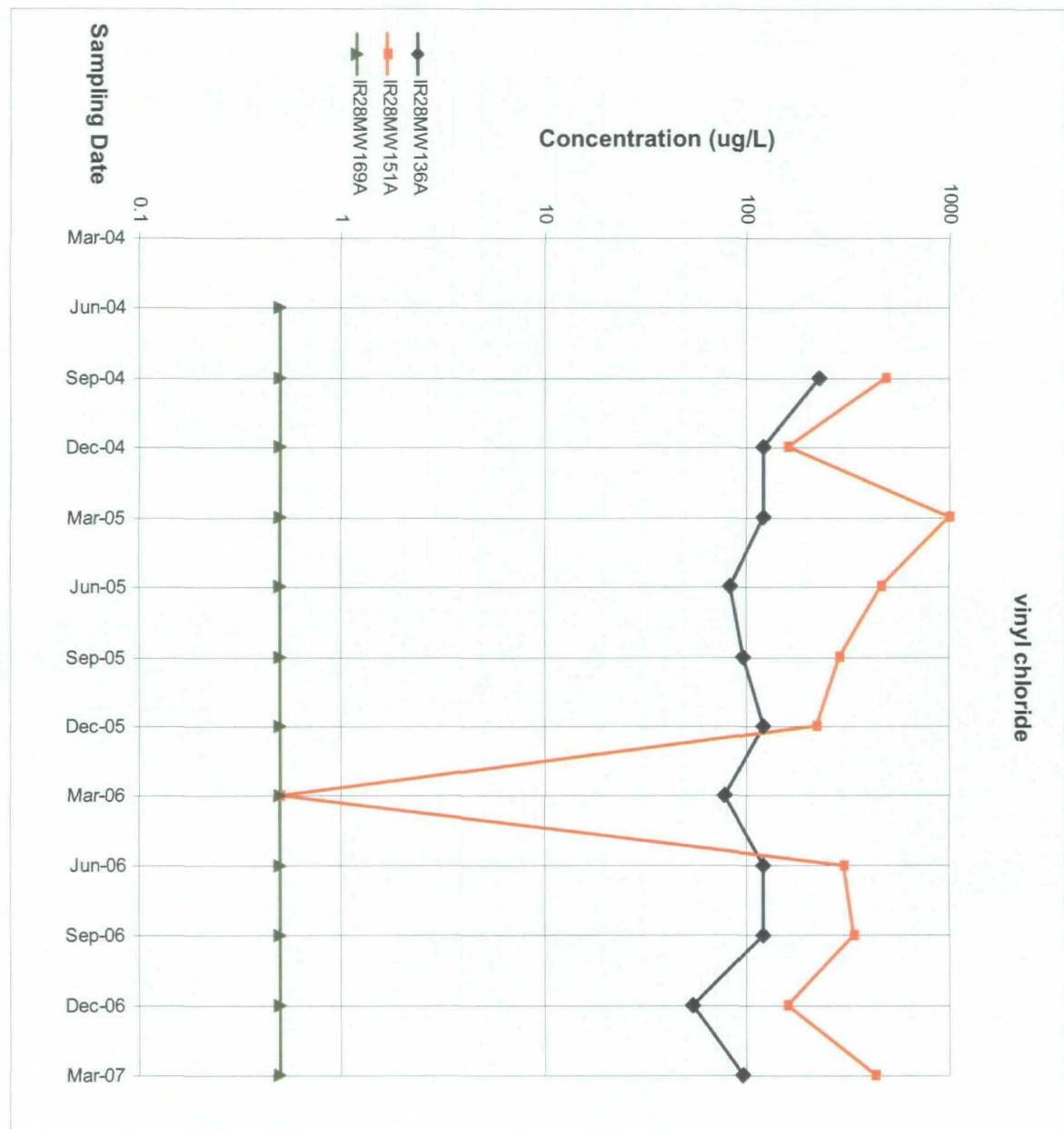
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#### Time-series plots of TCE and cis-1,2-DCE in groundwater at RU-C1

Parcels C, D, E and E-2 Quarterly Groundwater Monitoring Report  
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FIGURE  
**4-1**



Note: Practical quantitation limit 0.5 ug/L.



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## Time-series plots of vinyl chloride, 1,2-DCB and 1,4-DCB in groundwater at RU-C1

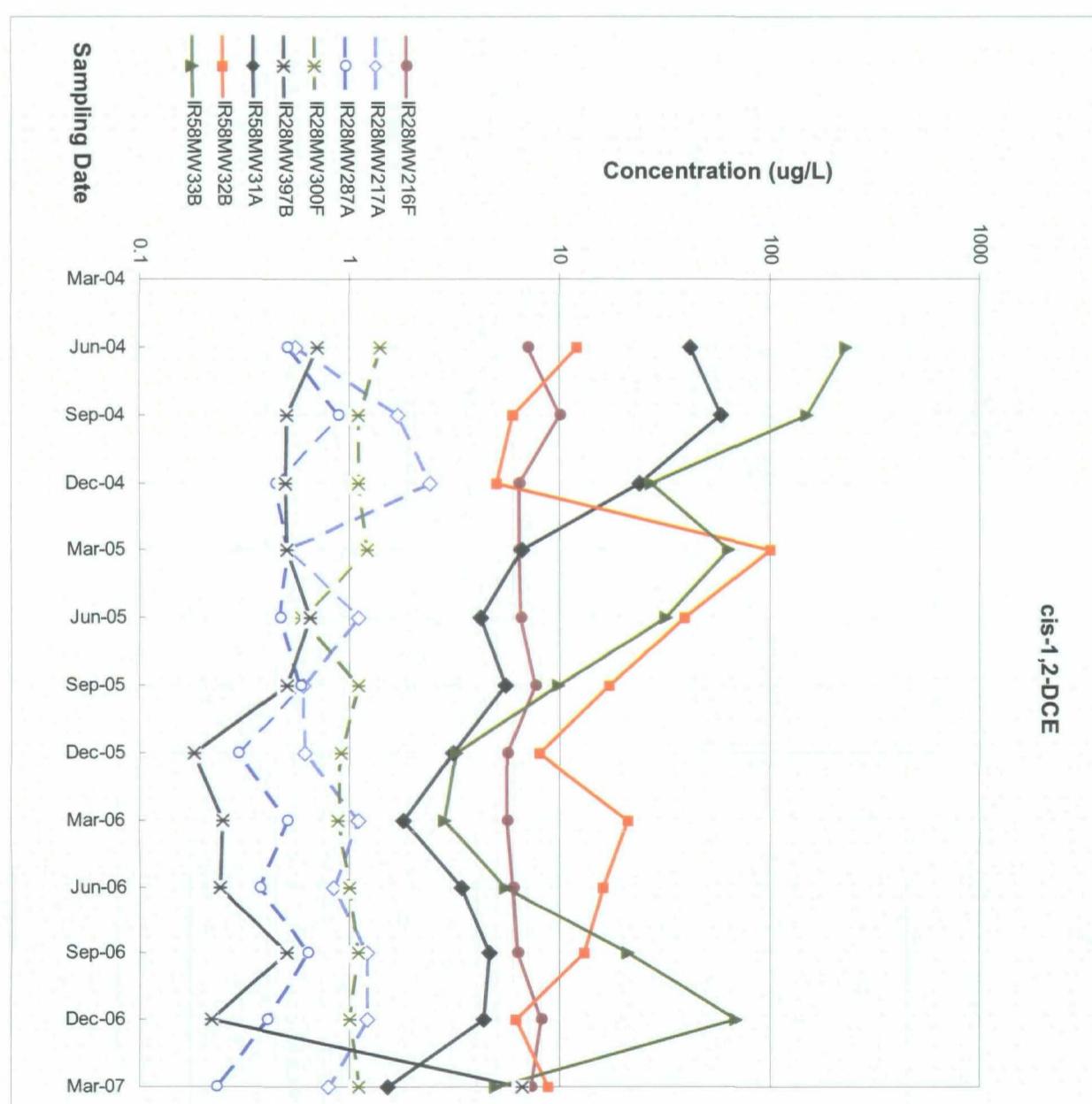
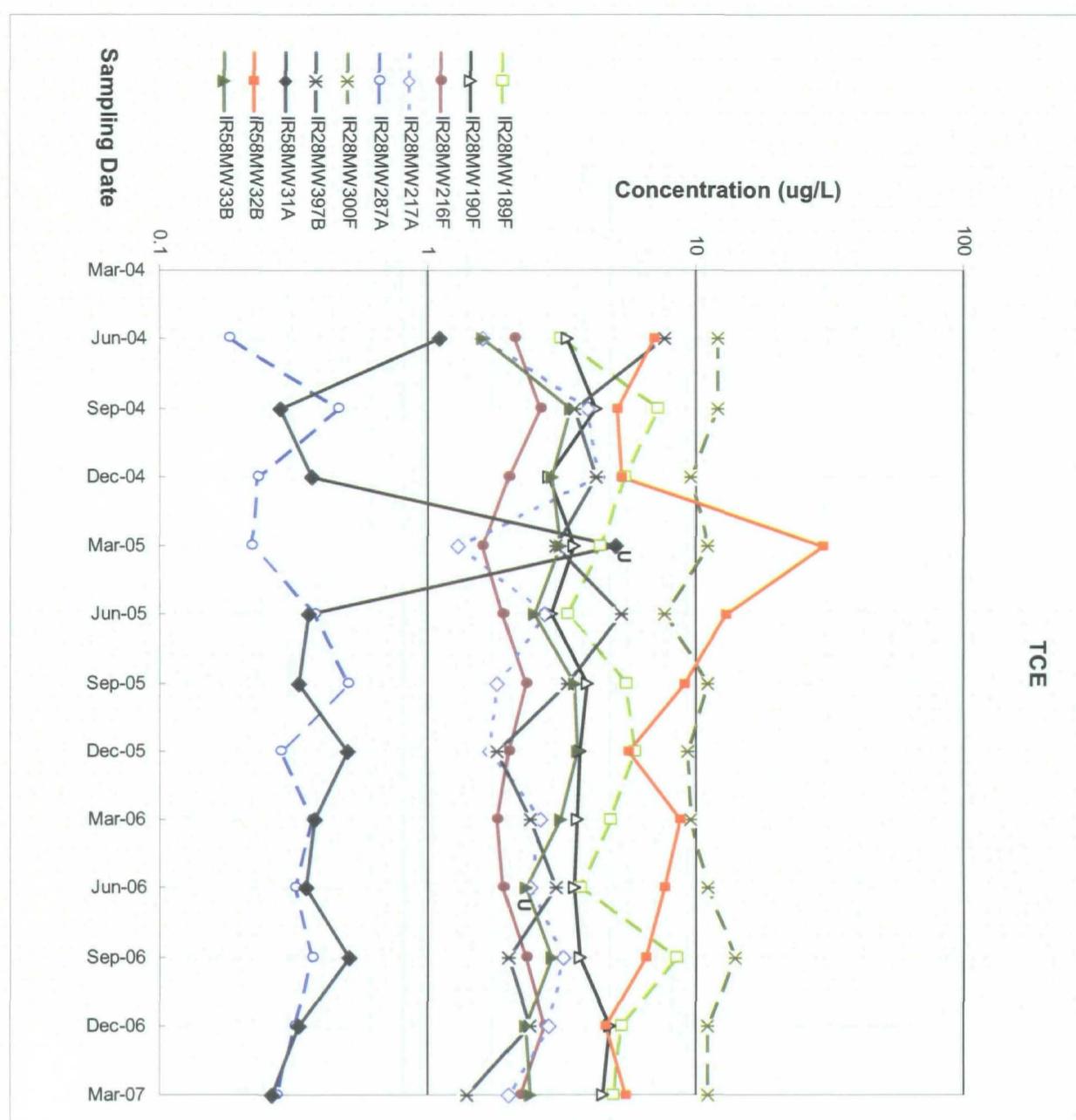
## Parcels C, D, E and E-2 Quarterly Groundwater Monitoring Report (January-March 2007) and Annual Report

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## FIGURE

4-2

Non-detects greater than 0.5 ug/L shown with "U" qualifier



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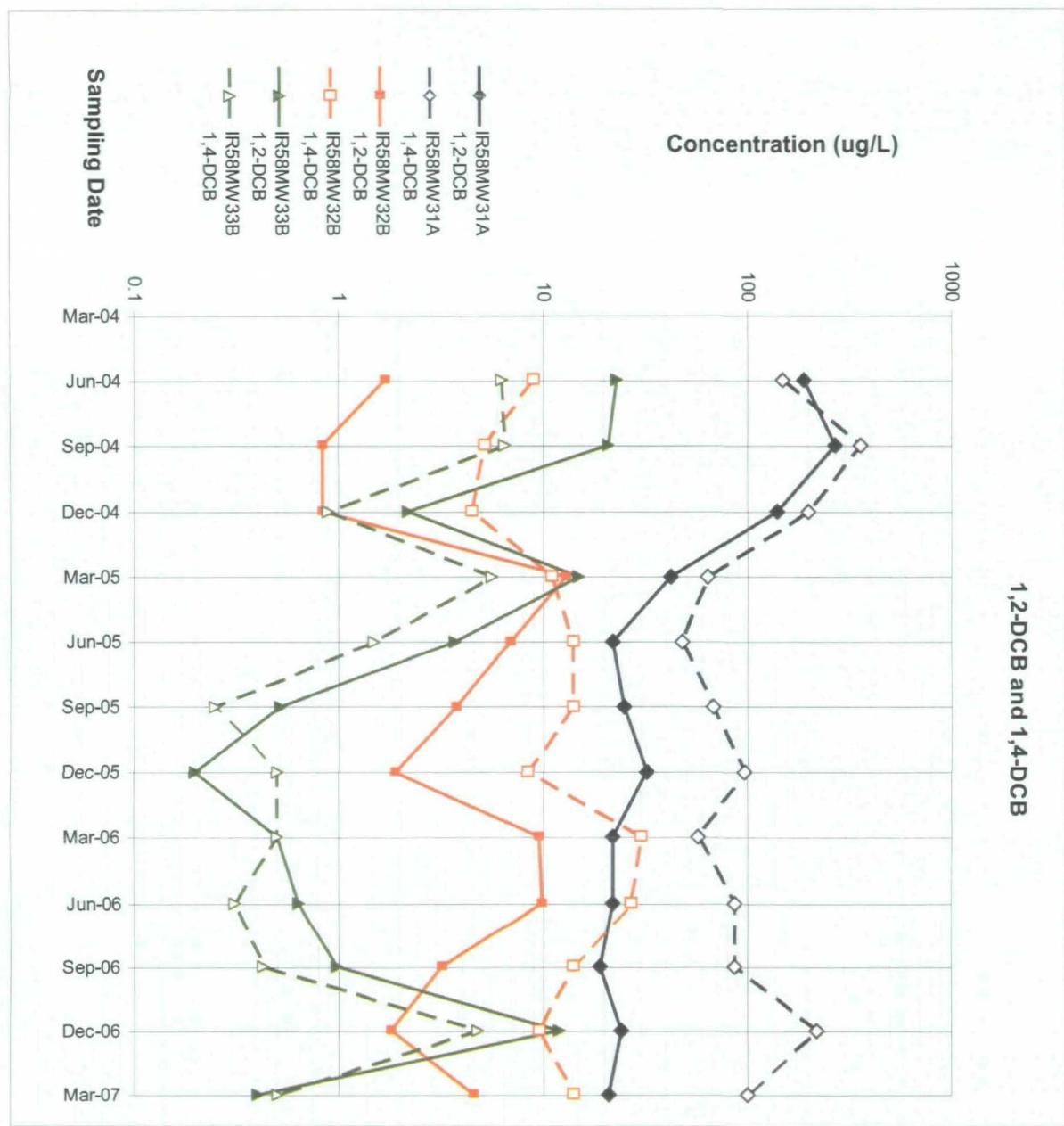
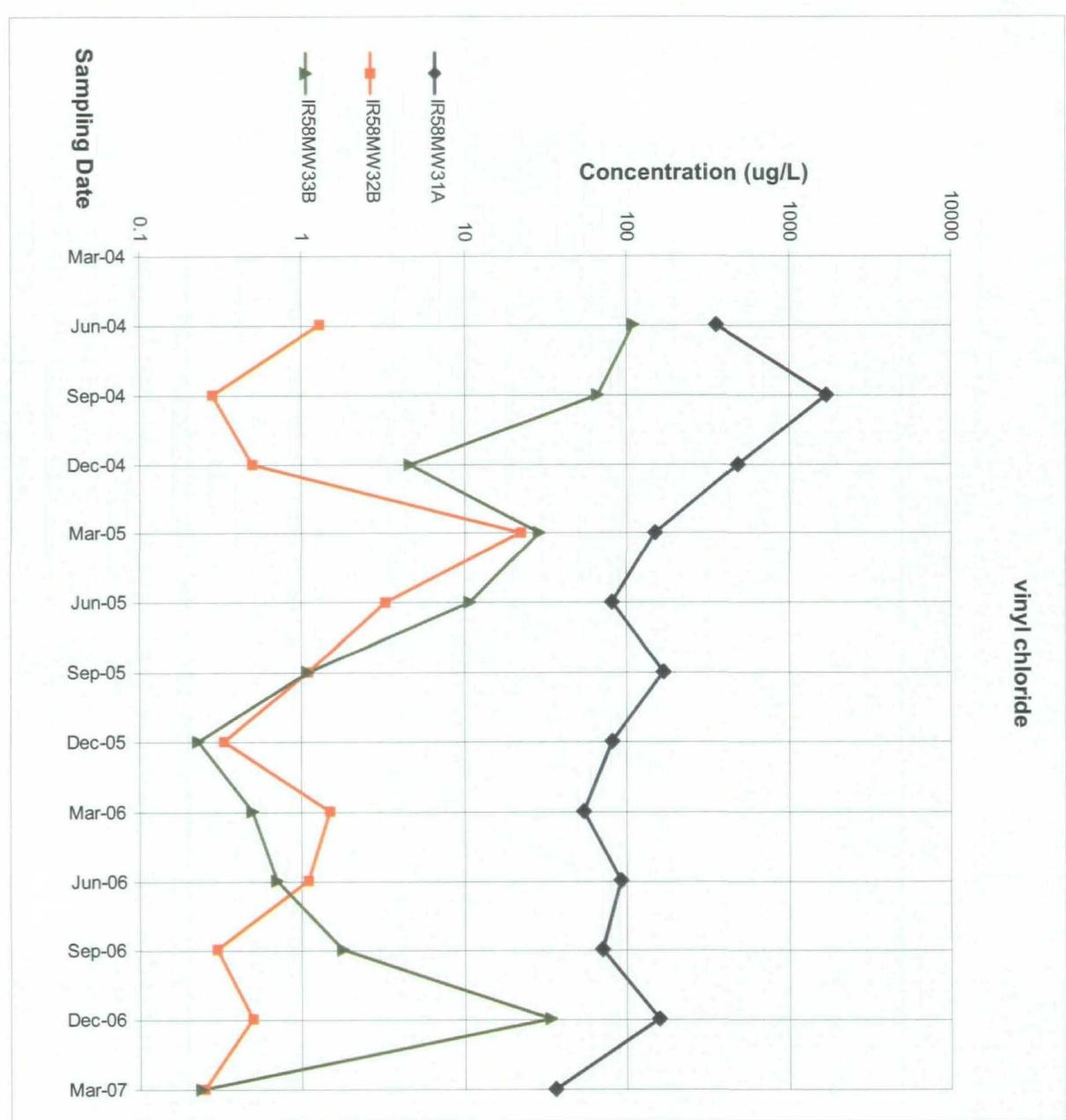
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Time-series plots of TCE and cis-1,2-DCE in groundwater at RU-C2

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FIGURE  
4-3



**CE<sup>2</sup>KLEINFELDER**

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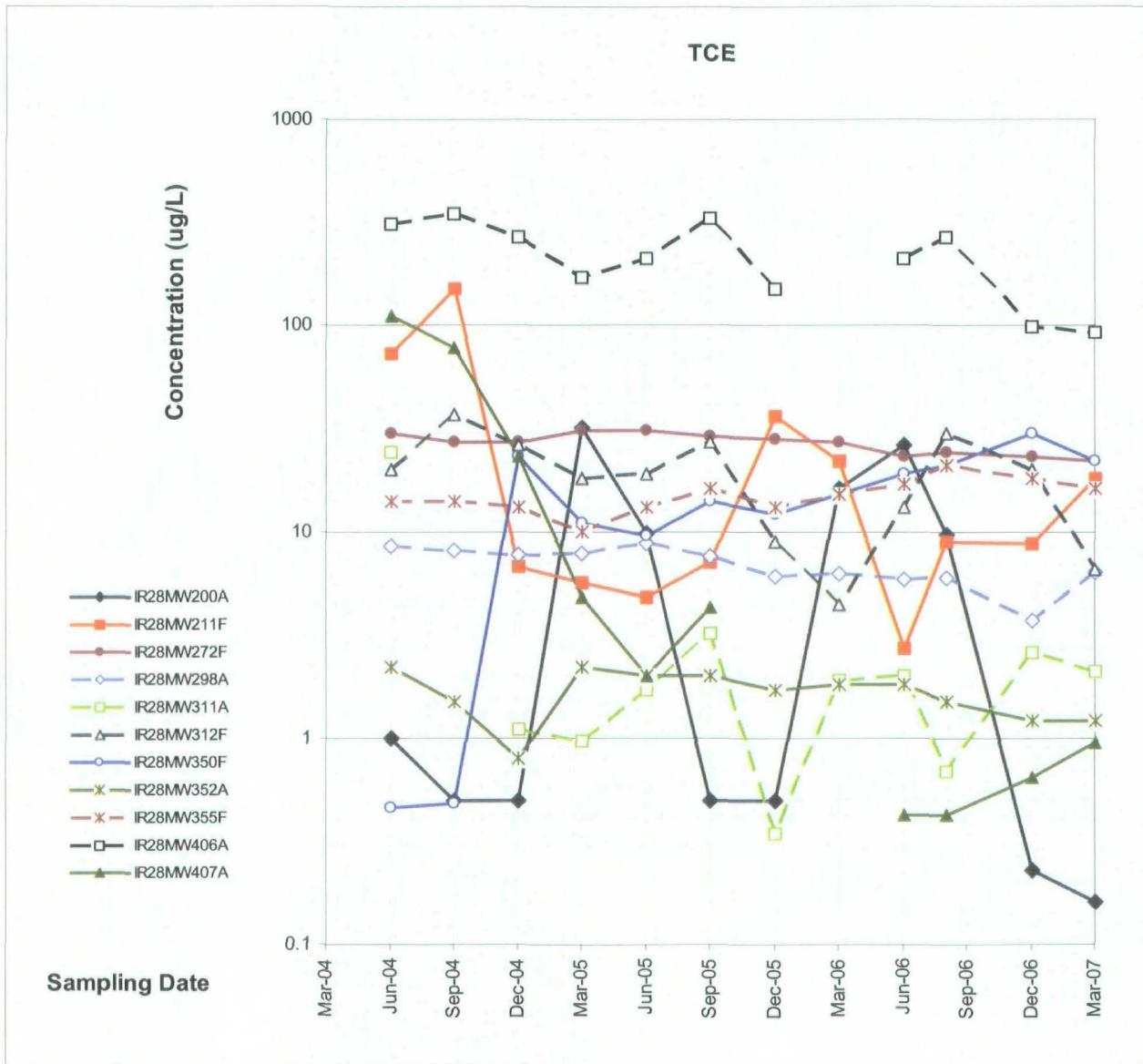
FIGURE  
**4-4**

FIGURE

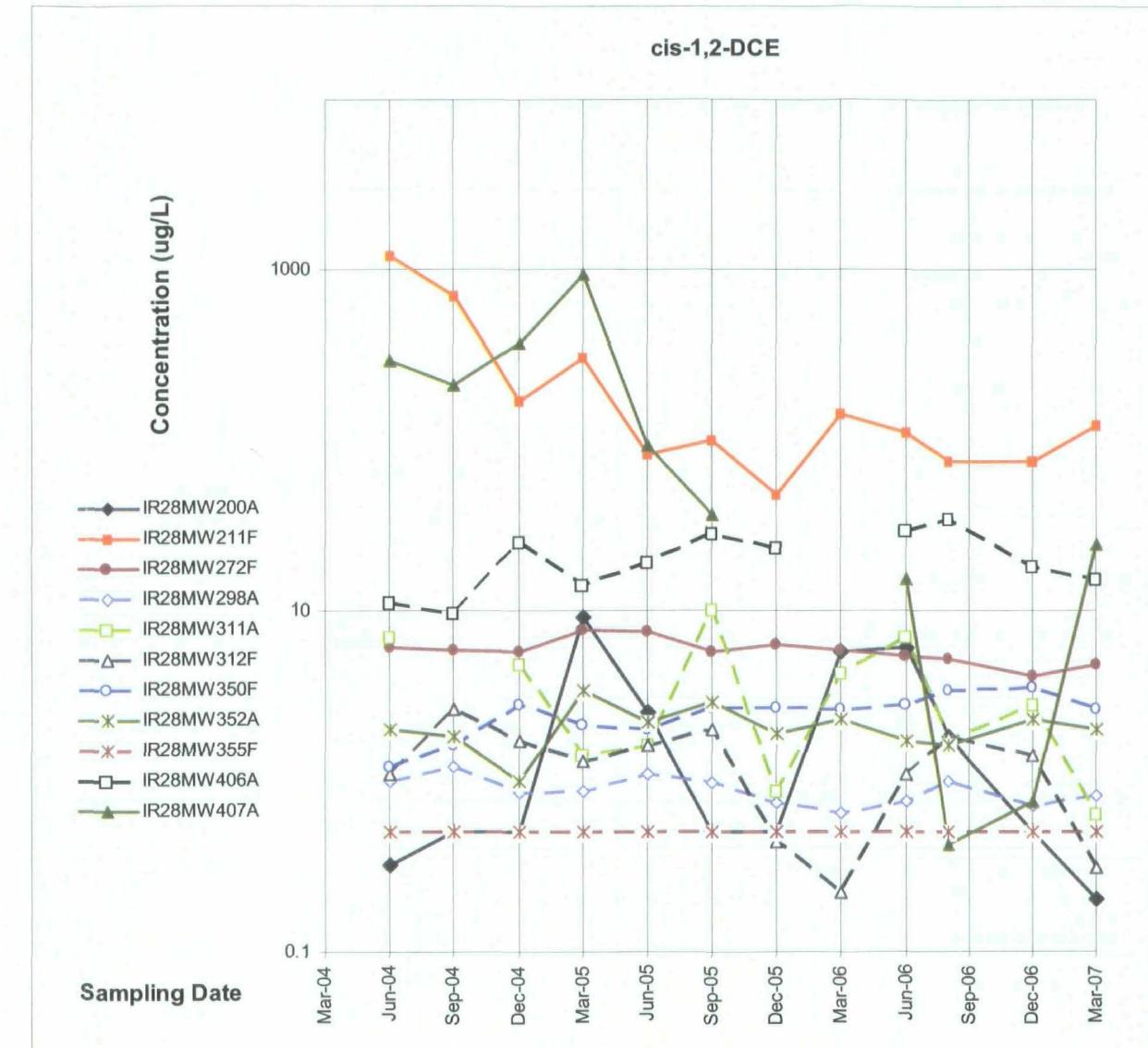
Time-series plots of TCE and cis-1,2-DCE in groundwater at RU-C4

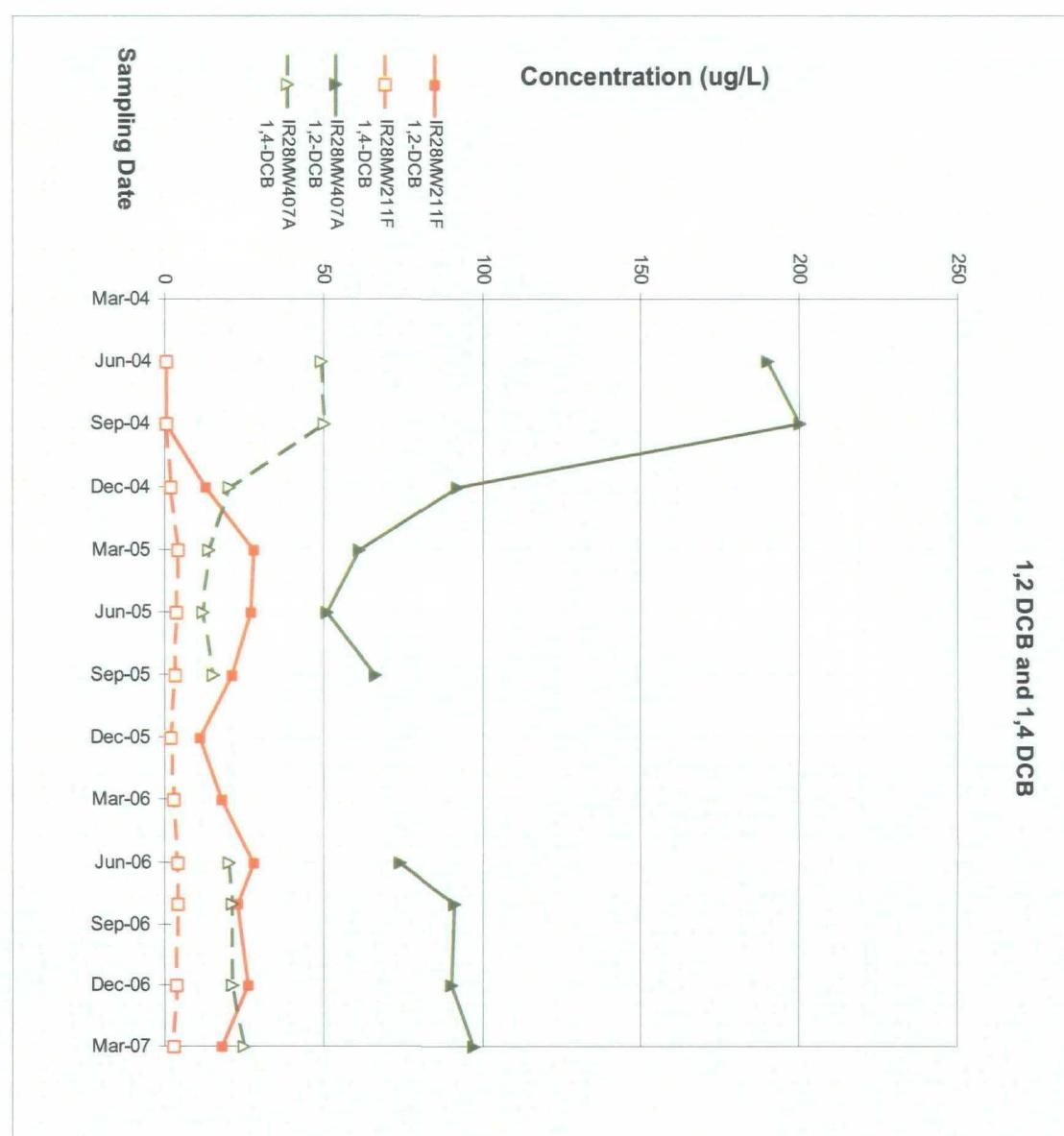
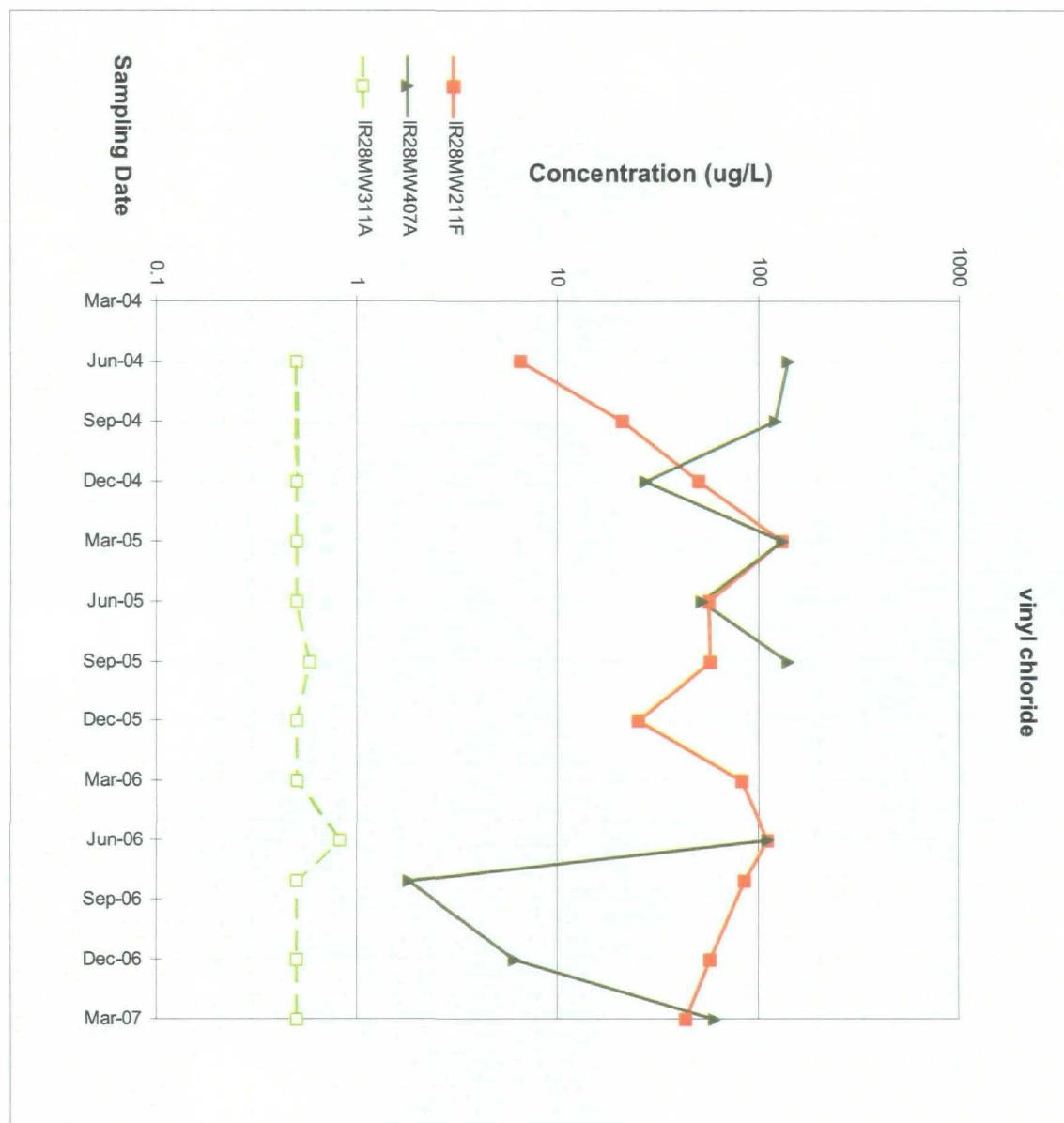
Parcels C, D, E and E-2 Quarterly Groundwater Monitoring Report (January-March 2007) and Annual Report

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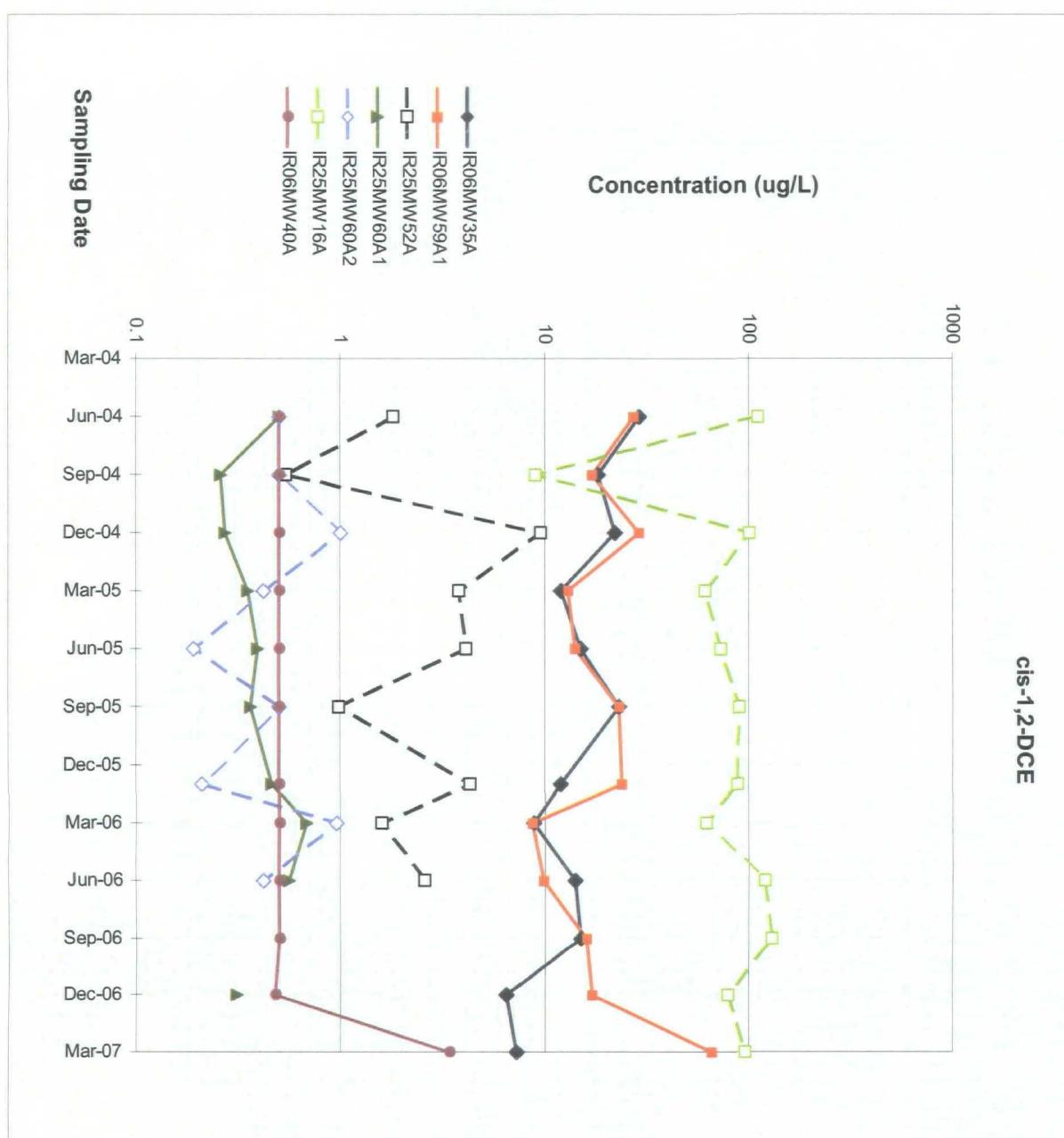
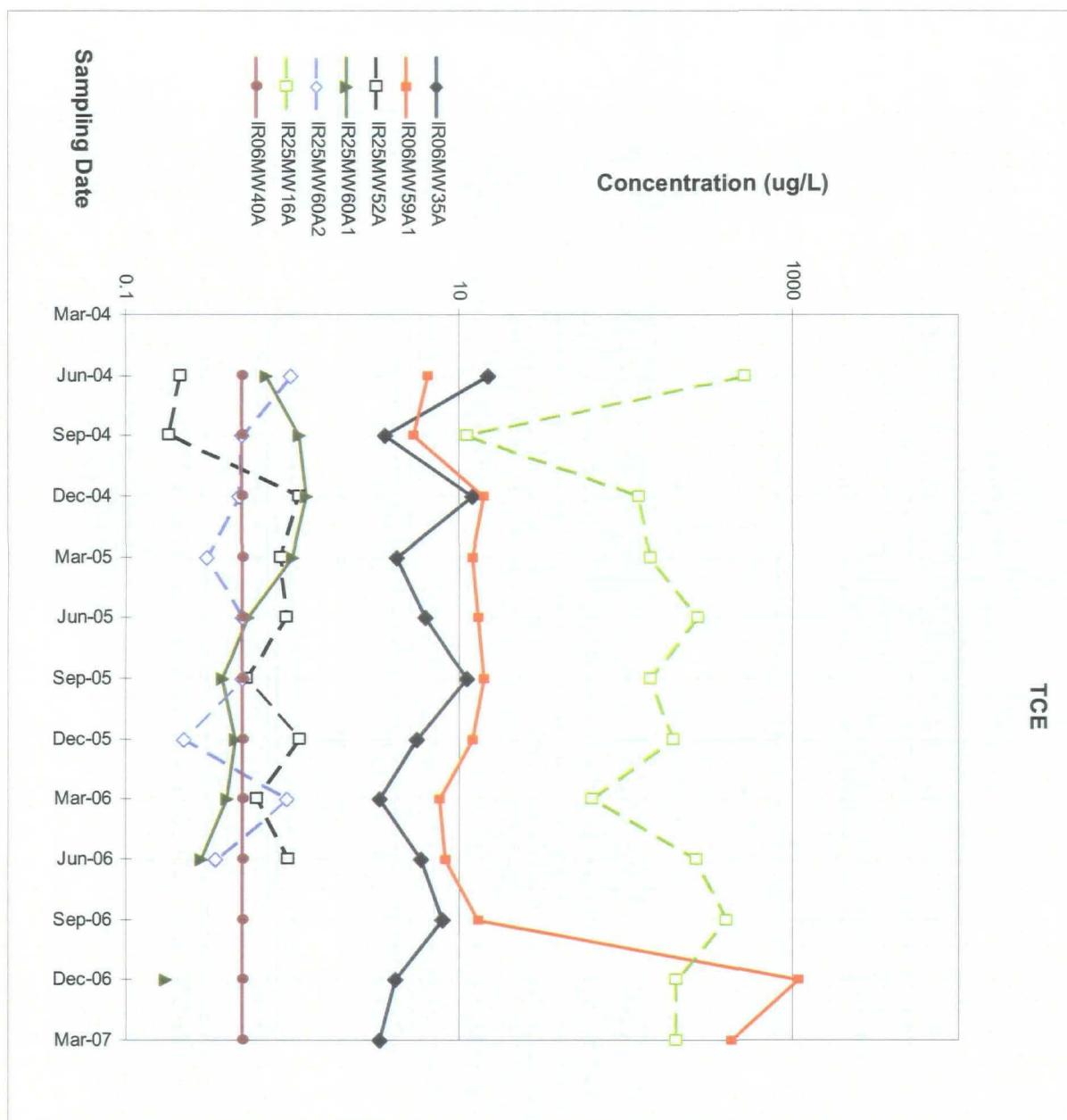


Note: Practical quantitation limit 0.5 ug/L.  
Well IR28MW406A was not sampled in 1Q06.  
Well IR28MW407A was not sampled in 4Q05 or 1Q06.





Note: Practical quantitation limit 0.5 ug/L.  
Well IR28MW407A was not sampled in 4Q05 or 1Q06.



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Time-series plots of TCE and cis-1,2-DCE in groundwater at RU-C5

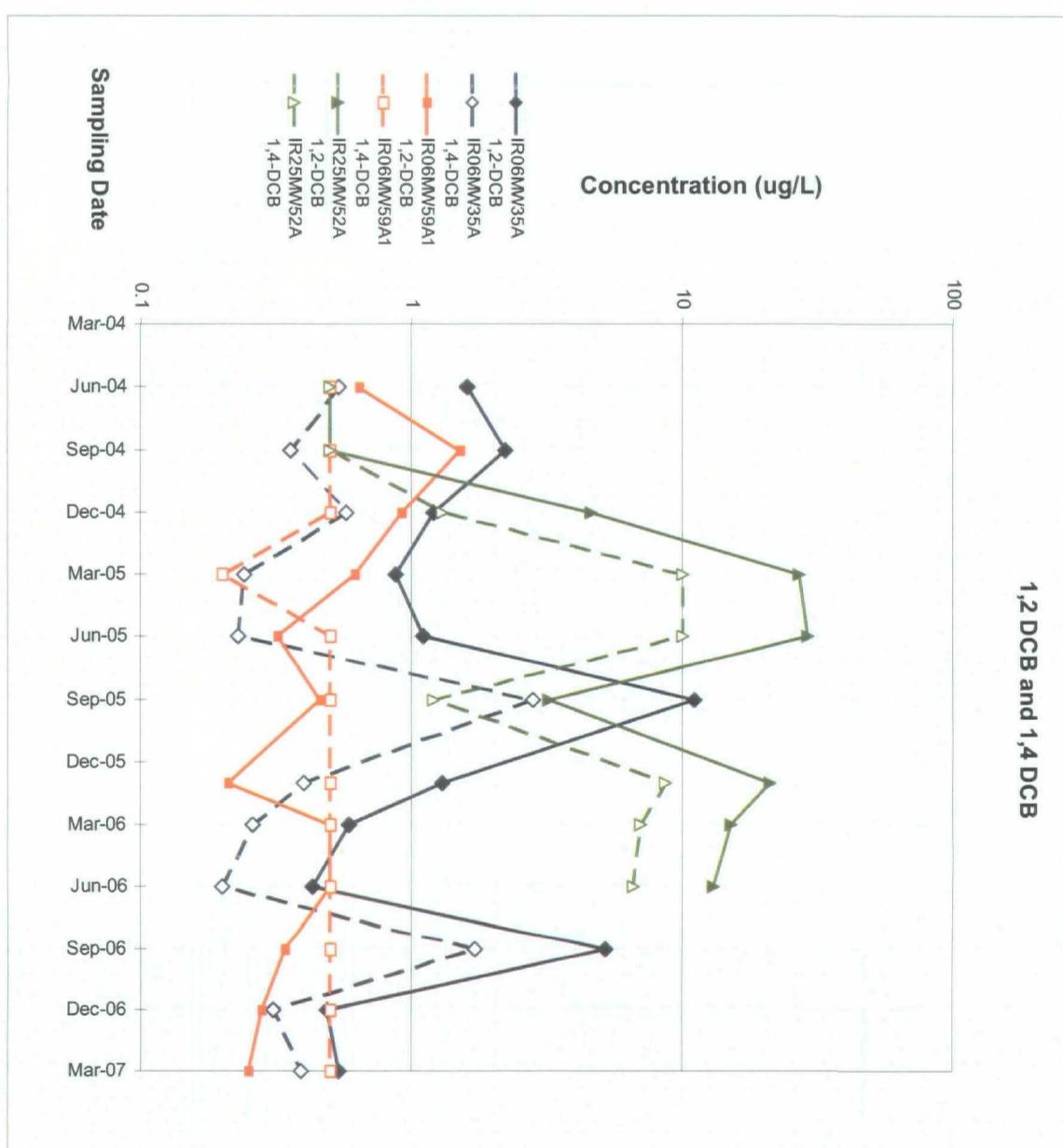
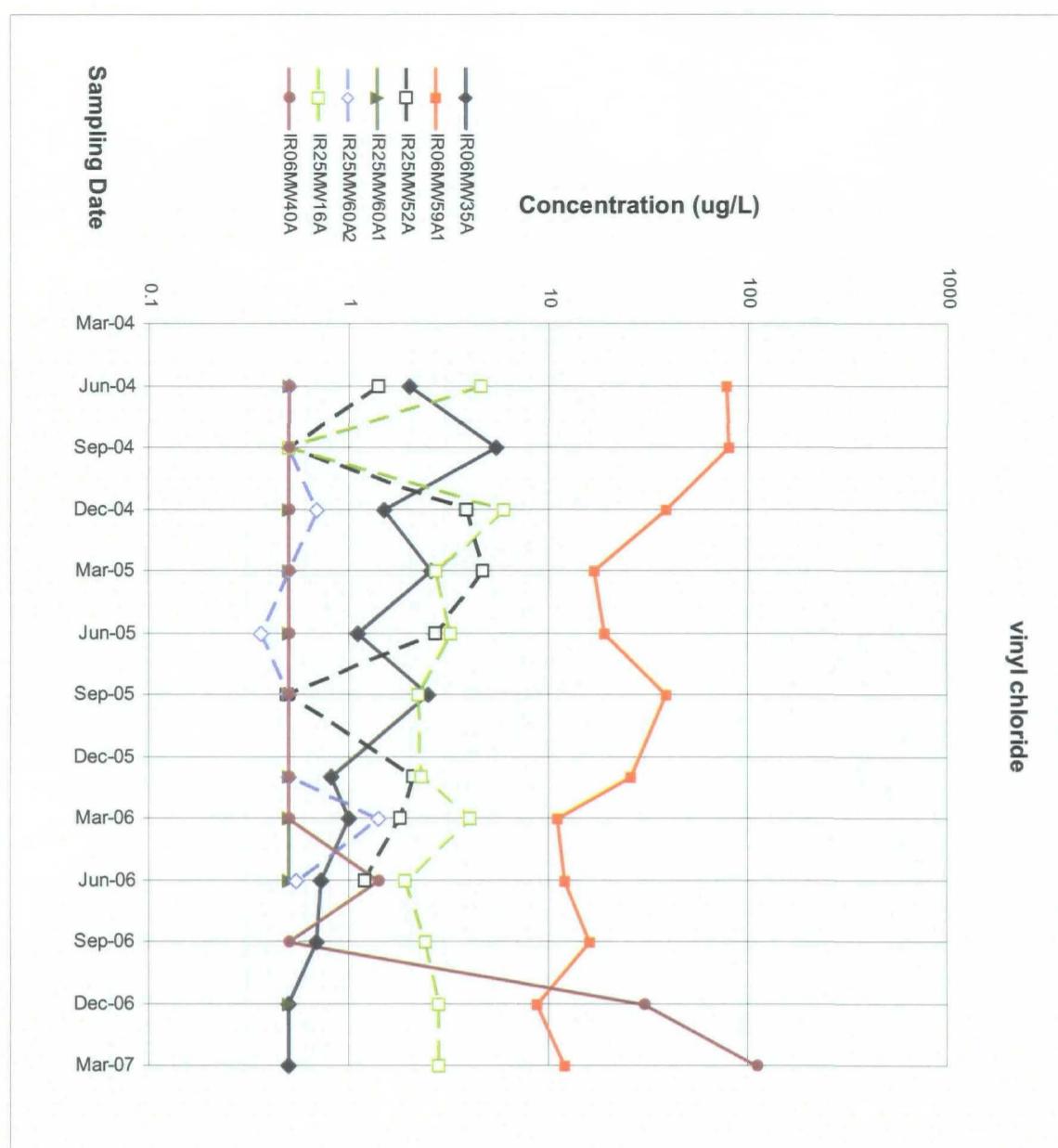
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FIGURE

4-7

Note: Wells IR25MW52A and IR25MW60A2 were decommissioned in July 2006.  
Practical quantitation limit 0.5 ug/L.  
Well IR25MW60A1 was not sampled in 3Q06 or 1Q07



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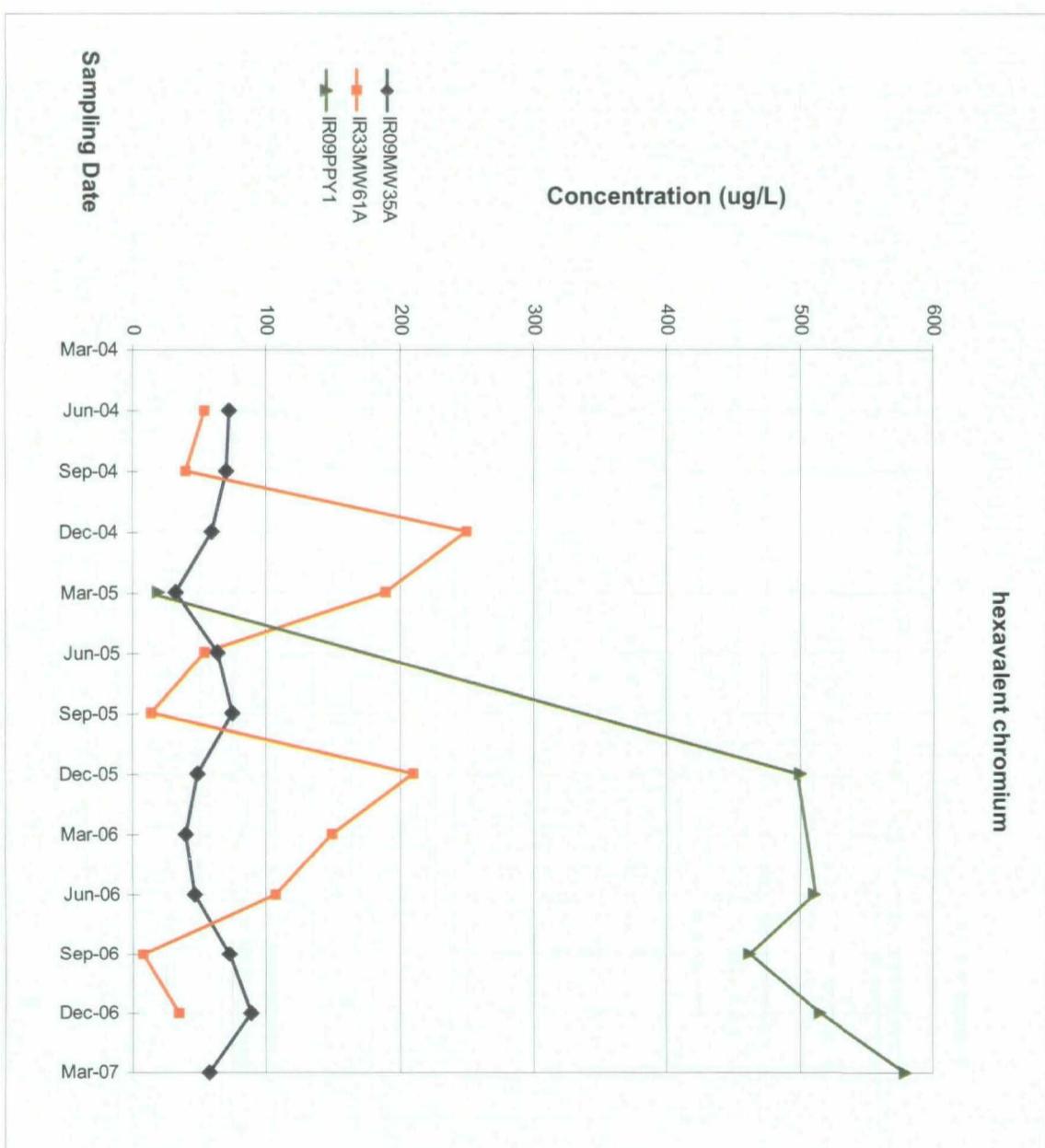
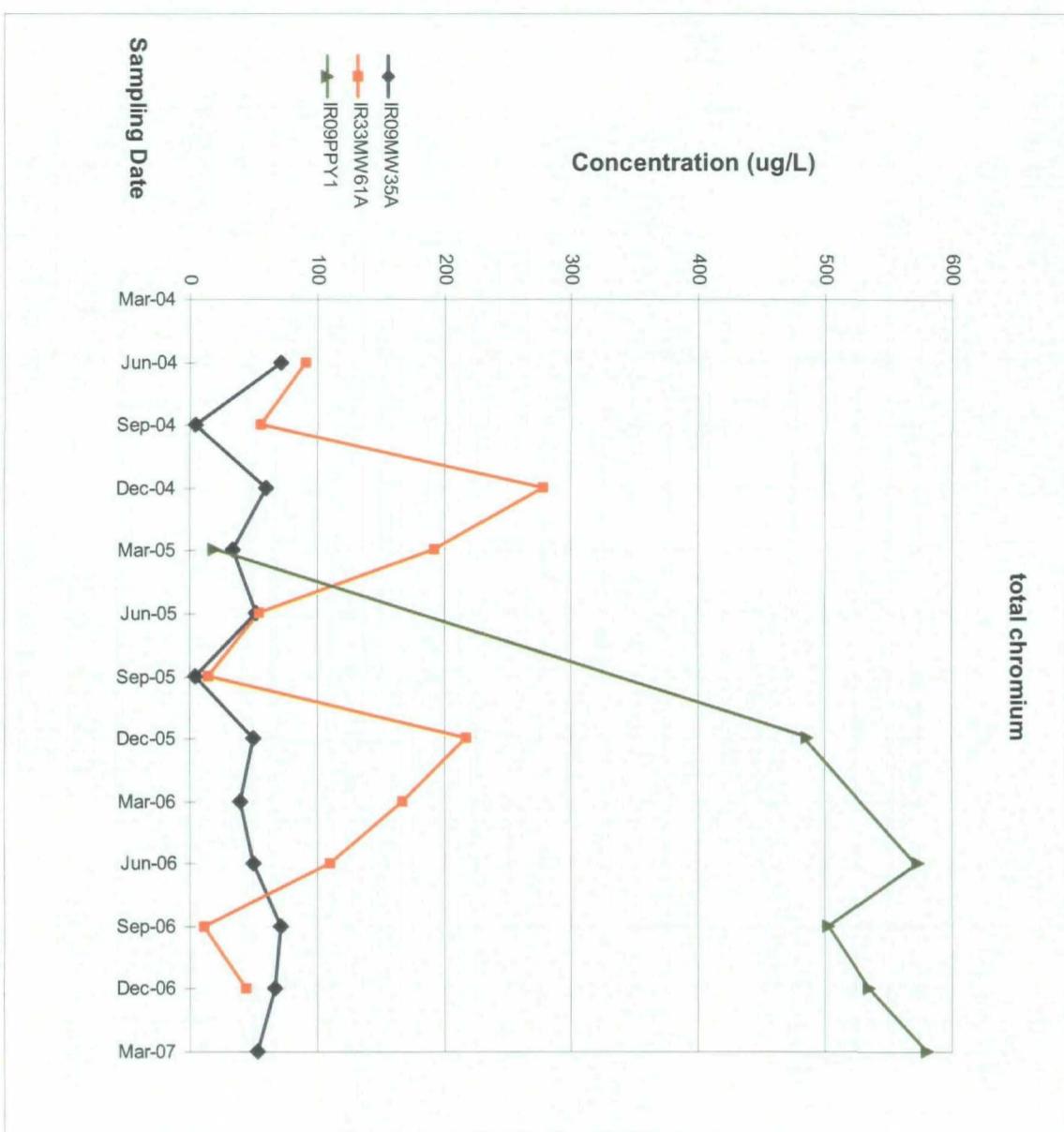
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Time-series plots of vinyl chloride, 1,2-DCB and 1,4-DCB in groundwater at RU-C5

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FIGURE  
**4-8**



Note:  
Practical quantitation limit 5 ug/L.

Note:  
Practical quantitation limit 0.5 ug/L.



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Time-series plots of total chromium and hexavalent chromium in groundwater at IR-09 and IR-33

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FIGURE  
**4-9**

## **Plates**

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